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6th January 2025

Copeland Borough Council
The Copeland Centre
Catherine Street
Whitehaven
Cumbria

For The Attention of Mr K Melville

RE: 27-29, Hugh Street Bransty, Whitehaven. Damaged properties

Dear Sir

As requested I carried out a structural inspection of the properties noted above which were damaged by an explosion on 31st December 2024 and note the following:-

1. The inspection was carried out on the 6th January 2025 and was limited to a non disruptive visual structural inspection of the properties where access was possible. No access was made into No 28 or 29, however the internal environs of No 28 could be viewed from the front door. Access was made into No 27 however full access onto the first floor was not possible due to safety issues.
2. The properties comprise typical two storey terraced dwellings formed in brick and random stone masonry. The roofs comprise rafters supported off timber purlins which span between the party walls. The floor joists appear to run from front to rear supported at the mid span by an internal wall or beam. The properties have two storey rear extension and a further single storey extension which are of more modern construction being formed in block/brick masonry. The rear elevation of the properties was inspected from ground level in the rear lane.
3. There has been an explosion in No 28 which has resulted in extensive damage to the three properties. Photographs 01 and 02 attached show views on the front and rear elevations of the properties. At the time of our inspection the whole street had been cordoned off and the residents decanted until the properties are made safe.
4. The purpose of this initial inspection and report is to identify the structural damage which has occurred to the properties noted above and to propose structural works which are necessary to make them safe to allow residents access to the street and their homes. It should be noted that we will not propose any remedial works at this stage as we assume this will be the responsibility of the property owners and associated insurers.

Considering the above we make the following comments:-

- The explosion has blew the roof off No 28 and caused the front wall to bow outwards and partially collapse. This has resulted in the front elevation becoming detached from the party walls. Furthermore the internal ground floor hall wall has collapsed to No 28. The rear extension has collapsed. The party wall with No 27 has suffered significant lateral movement during the explosion which has resulted in extensive cracking particularly evident within No 27. The structural integrity of the party wall has been compromised. (See photographs 03 and 04 attached). The property is at risk of further collapse which may lead to further damage to the adjoining properties,
- The roof to No 27 has been damaged where it abuts the party wall with No 28, The party wall as noted above has been significantly damaged and is unsafe. The internal wall between the hall and living room has also been seriously affected with extensive cracking apparent (see photograph 05 attached). The hall wall noted supports a first floor beam which spans over the living room and supports the first floor structure; should be hall wall collapse then the first floor structure will also collapse.
- The roof to No 29 has also been damaged where it abuts No 28. No access was possible into this property to inspect the party wall however no damage could be seen from No 28 side. This party wall comprises the chimney breasts which will have offered significant lateral stiffness to the wall which may have prevented extensive damage as noted for No 27. The front wall appears to have detached from the party wall especially above first floor level, the wall appears to have a slight outward lean. The chimney stack over appeared unaffected. Access does need made into No 29 to check for any cracking. This property does not appear to have been as affected by the explosion as the other two noted above.

Considering the above we recommend the following works are carried out in order to obviate the imminent danger posed (works required under Section 78 of the Building Act):-

1. The front, rear and internal walls of No28 needs taken down to first floor level. The remainder of the extension also needs taken down (not the party wall) as does the yard wall with No 29. The wall removal needs carried out with long reach plant, no access is to be made into the property or beneath the walls.
2. The roof to No 27 needs removed, this is due to the party wall, which supports the roof, being compromised by the explosion. Access into the property should not be made as noted above and hence long reach plant should be used. Upon removal of the roof the front and internal walls to No 27 and party wall with No 28 need taken down to first floor level; the rear wall can remain. Again the works need carried out using long reach plant to keep operatives away from the collapse envelope of the building. The extent of demolition proposed to No 27 is based on the potential for the party wall to fail and the significant safety hazard to operatives accessing the area should the party wall collapse
3. Access needs made into No 29 to check for cracking. It is likely that the front elevation will need retied into the party wall. This can be achieved by installing Helifix Ltds Helibar System with bars fixed into the walls at 450mm vertical centres. It would be prudent to contact Richardson and Starling Ltd (Carlisle) to carry out this work. The work should be carried out following the completion of the demolition works noted above. The roof to No 29 will also need repaired to prevent moisture gaining access and prevent localised wind uplift issues.
4. Following completion of the demolition works the exposed external face of the party wall to No 26 and 29 will need weather proofed. As a minimum Visqueen sheeting will need fixed to the wall and suitably lapped to keep rainwater away from the surface; the sheeting will need tied into the remaining roof finish. Access onto the first floor of No

27 should not be made until a further inspection of the ground floor walls is carried out by an Engineer following completion of the demolition works.

5. We recommend that the external ground floor area to the front of No 27 and 28 is cordoned off with Heras fencing following completion of the works noted above. The fencing should extend at least 2.0m into the highway and returned back against the properties at the party wall locations. Similarly the rear yard areas to No 27 and 28 need cordoned off at the interface with the rear yard wall.

The following works are required to secure the short term structural stability of the properties following completion of the recommended Section 78 works (works required under Section 77 of the Building Act):-

- The roofs to the extensions to No 27 can be repaired and the damaged extension wall locally rebuilt once the above demolition works are complete.
- We assume that the remaining party walls to No 26 and 29 will be laterally robust and capable of withstanding lateral wind loading due to the presence of the chimney breasts. The breasts are in place to No 29 however an inspection is required to verify that the breasts are still fully in place to No 26. The party walls will need assessed once the demolition works noted are complete and access into No 26 and No 29 is possible.

I hope you find the above acceptable however should you have any queries please do not hesitate to contact me.

Yours Faithfully

Mr Tom Short B. Eng. (Hons), C. Eng., MICE
For WDS Limited

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PHOTO 01 FRONT ELEVATION



PHOTO 02 REAR ELEVATION



PHOTO 03 DAMAGE TO PARTY WALL No 27/28



PHOTO 04 FRONT WALL/PARTY WALL No 27/28



PHOTO 05 HALL WALL N^o 27 LOOKING FROM LIVING ROOM