



# Burgoyne

consulting scientists and engineers

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**For the attention of Andrew Shackleton**  
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**INSURED: ANDREAS INVESTMENTS LTD**  
**INCIDENT: BUILDING COLLAPSE AT 68A HAROLD STREET, GRIMSBY, DN32 7NQ**  
**INCIDENT DATE: 13 SEPTEMBER 2023**

I refer to your instructions received on 3 October 2023 regarding this incident. I visited the scene on 12 October 2023, and met you and Mr Andreas Russo, who I understand had exchanged contracts for the purchase of the loss premises in June 2023, and he had purchased an insurance policy with RSA, for building cover, but the property sale had not completed, pending planning consent.

Figure 1 is a Google Earth image (dated April 2023) showing the location of the incident address relevant to neighbouring properties. It is an L-shaped industrial building (highlighted in red), with a main two-storey section, aligned north-south, accessible from Harold Street to the north, and a single-storey section, aligned east-west, attached at the south-east end. This part of the building was of traditional brick construction with a twin-pitched, timber-framed, tiled roof. For the purposes of this report, I have denoted the single-storey section as the “extension”, and its north and south roof pitches as A and B, respectively. The south elevation of the extension (highlighted in yellow in Figure 2) faced the back gardens of four properties on Castle Street to the south. The east gable walls of the extension were adjacent to a school playground.

Figure 2 is a closer aerial view of the extension, showing damage to roof A, where tiles were missing/dislodged and there was a substantial hole at the east end, adjacent to roof B. I have appended an historical aerial image, which shows similar damage to the roof in September 2019 (Figure 3).

According to Mr Russo, he had visited the premises with the property agents, and been inside, in November 2022, and at that time the property was occupied by tenants, apparently selling car parts. He also visited the site in June 2023 to carry out an external inspection and did not go inside the building.

I have spoken to [REDACTED] [REDACTED] told me that the loss address had originally been an antiques shop before closing several years ago. A cannabis farm was discovered at the property shortly before the Covid pandemic, and items were removed by the Police. More recently, the site had been used as a vehicle repair/parts business, but there had been no indication of activity in the premises, such as light coming from a window at the rear of the main building, for around 8-12 months.

During the days leading up to the incident, it had rained. Shortly before midnight on 12 September 2023, [REDACTED] was awoken by what sounded like a gust of wind followed moments later by what [REDACTED] described as the ground shaking, like a “mini earthquake”. There was no “bang”, and nobody else in the house was woken up. On the following morning, at about 07.00 hrs, [REDACTED] and on investigation saw that the south part of the extension, i.e. roof B, had collapsed.

According to their records, the Fire Service was alerted to a building collapse at the loss address at 07.03 hrs on 13 September 2023. A Senior Officer was sent to investigate, to assess whether an attendance by fire-fighters was required. He confirmed that there was no evidence that a fire or explosion had occurred. On the basis that there was no life risk, no further action was taken by the Fire Service, and he referred the incident to the local Council. He spoke to [REDACTED] [REDACTED] who told him [REDACTED] had heard a rumbling sound at about midnight and had discovered the following morning that the relevant section of the building had collapsed, and [REDACTED] had called the Fire Service.

Mr Russo said he was notified of the incident by the managing agents who informed him that the building had collapsed. I understand that Mr Russo reported the incident to his insurer as an explosion.

## **Inspection**

Photograph 1 is a view from Harold Street towards the front of the loss address. A separate building, which I understand was part of the premises, had evidently suffered a previous fire.

Photograph 2 is a view from the front entrance into the ground floor area of the main building. The mains electrical supply entered the property at the front, but the supply equipment downstream of the service head was missing, i.e. there was no mains electrical supply to the fixed wiring in the building. I saw no indication that the property was connected to a mains gas supply; I did not find a gas meter or any gas appliances such as a boiler. The rear part of the ground floor was essentially filled with a large pile of what appeared to be general waste, including car parts, tyres and assorted items (Photograph 3), and this area was not accessible.

There were stairs to the first floor, where the rooms were largely empty. There was evidence of water ingress in first floor rooms at the front of the building (Photographs 4 & 5). Elsewhere, towards the rear of the first floor, the ceiling was lined with reflective foil (Photograph 6), and I found plant fertiliser containers and compost.

There was open access from the ground floor into the extension, where it communicated with the main building. Photograph 7 is a view into the area beneath roof A, where most of the space was filled with a pile of materials, that appeared to be similar in content to that in the main building. Photographs 8 and 9 are views above the suspended ceiling that had been installed beneath the roof, with timber beams secured by joist hangers to the original timber frame of the roof, to support a timber sheet ceiling. Photograph 10 is a view from within the ceiling void towards the area of roof A where it had failed/collapsed at the east end, adjacent to roof B (as shown in Figures 1-3).

Photographs 11 and 12 show where there was open access that led from the main building into the extension. Roof B was entirely collapsed/missing and the ground beneath was littered with broken tiles and timber sections (Photographs 13-15). Straps had been secured to the east gable wall, to prevent it collapsing into the adjacent playground. Collapsed timbers had been piled up towards the west end and into the area beneath roof A.

Photograph 16 is a composite image showing where the south elevation of the extension had collapsed into the passageway that had separated the extension from the gardens of the properties on Castle Street. Masonry, guttering and sections of timber had collapsed onto fencing and into the gardens close to the passageway (Photographs 17 & 18), but the debris did not extend beyond a few metres of the passageway, and a timber shed in the garden at [REDACTED] that was relatively close to the passageway, was undamaged (Photograph 19).

Photograph 20 is a composite view north from the collapsed part of the extension towards roof A, showing two areas where a substantial timber member, aligned east-west, had fractured. The timber in these areas was discoloured, consistent with water damage (Photographs 21 & 22). Inspection of lengths of timber in the area of collapse revealed several sections that had been sawn through and others that had fractured (Photographs 23 & 24).

I found no remains of gas cylinders or gas pipework in the extension and saw no evidence of fire or heat damage to suggest flame propagation anywhere within the property.

## Discussion

This incident involved the collapse of the southern roof (B) of the extension and its south wall. The collapse was reportedly discovered by [REDACTED] several hours after [REDACTED] was awoken by what [REDACTED] thought was a “mini-earthquake”/rumbling noise. [REDACTED] did not hear a “bang” and as far as I am aware, there were no reports of an “explosion”, and the Fire Officer who attended saw no indication that a fire or explosion had occurred.

My inspection revealed no evidence of thermal damage, to suggest that the incident had involved combustion, in the form of either a fire or an explosion. There was no evidence of blast effects to indicate that an overpressure event had occurred inside the extension. In terms of fuel for an explosion, there was no sign of a mains gas supply to the building, and I saw no gas cylinders inside the property. The mains electrical supply had been isolated at the service head, remote from the extension, and therefore there was no power supply to the fixed wiring installation. On the basis that the property was unoccupied at the material time, there would appear to be no credible ignition source for an explosion, whether accidental or deliberate.

Thus, there is no evidence to suggest that the cause of the collapse was related to an explosion. Rather, collapse due to structural failure would explain the damage I observed and the description of [REDACTED]. In that regard, part of roof A had failed several years ago, there was evidence of water ingress into the main building, via the roof, and where a structural timber beam between the two roofs of the extension had fractured, discolouration of the timber looked consistent with water damage. It had also reportedly been raining in the area during the days leading up to the incident. There was clear evidence indicating that the main building and the extension had been used to cultivate cannabis, consistent with [REDACTED] account that a cannabis farm had been discovered several years ago. This had involved modifying the building by lining surfaces with reflective foil, and may also have involved installing suspended ceilings, including in the extension, thus adding additional weight to the original timber structure that supported the roof. Whilst the sawn sections of timber I saw amongst the collapsed debris may have been cut when straps were secured to the east gable wall after the incident, I cannot rule out the possibility that the roof structure had been modified/changed, and thus weakened, prior to the collapse.

Thus, the evidence is that the building collapse was not caused by an explosion, and whilst I cannot confirm the precise cause, damage due to water ingress and modifications that weakened/added weight to the roof structure are potential contributory factors.

Yours sincerely



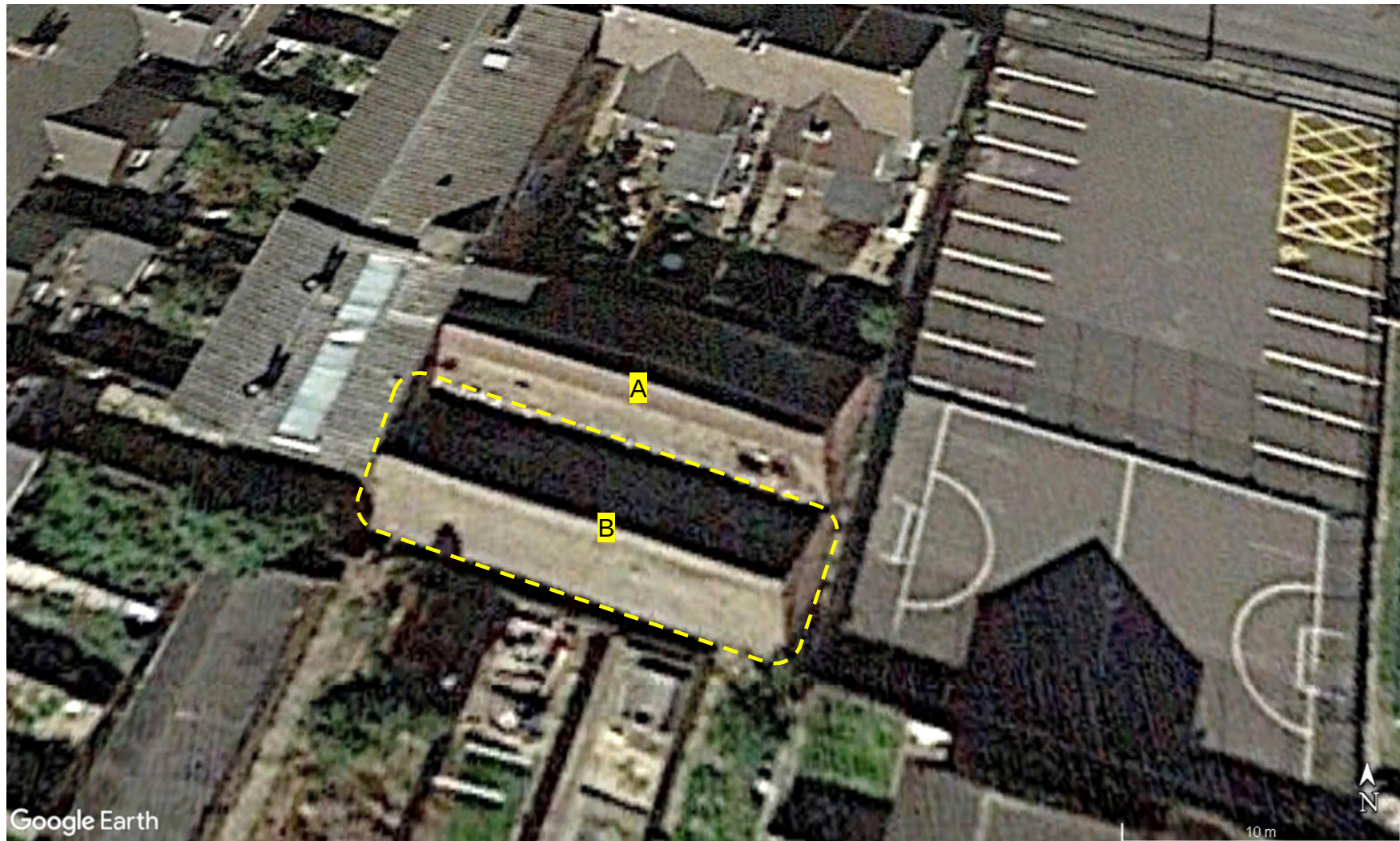
**DR C L GARDNER**



Figure 1



**Figure 2**



**Figure 3**



**Photograph 1**



**Photograph 2**



**Photograph 3**



**Photograph 4**



**Photograph 5**



**Photograph 6**



**Photograph 7**



**Photograph 8**



**Photograph 9**



**Photograph 10**



**Photograph 11**



**Photograph 12**



**Photograph 13**



**Photograph 14**



**Photograph 15**



**Photograph 16**



**Photograph 17**



**Photograph 18**



**Photograph 19**



**Photograph 20**



**Photograph 21**



**Photograph 22**



**Photograph 23**



**Photograph 24**