

Unit 6
Belturbet Business Park
Creeny
Belturbet
Co. Cavan
H14AY93

T: +353 49 9522236
E: info@alantraynor.com
W: www.alantraynor.com

Bond House
9-10
Lower Bridge St
Dublin 8
D08TH76

T: +353 1 9697881
E: dublin@alantraynor.com
W: www.alantraynor.com



Alan Traynor
Consulting Engineers Ltd.

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Structural Report

Relating to

Derelict Properties at

42,43 & 44 Brews Hill,
Navan,
Co Meath.

For

Meath County Council

Prepared by – Pauric Loughlin
File Ref: 22/120
Dated 13th September 2022

Surveyor: Pauric Loughlin

Date of Inspection: 8th August 2022.

Weather Conditions: Dry and sunny during inspection.

1 Scope of Inspection:

- 1.1 This survey has taken the form of an appraisal of the property arising out of a visual inspection only. Parts of the structure are inaccessible and/or unexposed as it was deemed unsafe to access the full extent of the property due to its poor condition. No opinion can therefore be given on these areas and it must be appreciated that defects such as woodworm or dry rot may be present but cannot be conclusively identified. No tests were carried out on the electrical, plumbing, heating, or drainage installations.

2 Use of Report:

- 2.1 This report is for the sole use of Meath County Council and the Design Team and shall not be given to or used by a third party without the expressed written consent of Alan Traynor Consulting Engineers Ltd.

3 Background:

- 3.1 Meath County Council intend to develop the site and have requested that we carry out a structural survey to give our opinion on the structural integrity of the existing buildings.

4 Inspection:

- 4.1 From inspection of the properties it is evident that little maintenance has been carried out for some time and the buildings have fallen into disrepair. It is evident from aerial views that there is a significant amount of missing slates to Units 43 & 44 with large portions of the slates on the front roof slope clipped which indicates failure or corrosion of fixings.
- 4.3 There was no access internally to No 43 & 44 Brews Hill as it was deemed to be unsafe due to the poor condition of the property. Given the extent of missing roof slates there will be considerable damp penetration which will have a negative effect on structural timbers which will result in wetrot. This wetrot will result in collapsed ceilings and floors. The roof of 42 Brews Hill is covered in corroded corrugated sheeting and supported on a timber truss with t&g ceiling which is partially collapsed. It would appear that this property was originally covered in thatch with some remaining above the t&g sheeting ceiling.

- 4.4 There is significant detached render to the rear elevation which indicates walls are of mass concrete which appears loose and crumbly which may be due to persistent damp penetration. Given the age of the property it is assumed that some walls will also be a mixture of brick and stone rubble most likely constructed of lime mortar.
- 4.5 There is a suspended wooden floor to 42 Brews Hill which is rotten due to wetrot and does not allow full access to property. It would appear that subfloor vents are also provided to 43 Brews Hill which would indicate that suspended timber floors are also provided to this property.

5 Recommendation/Method Statement:

- 5.1 From visual inspection of the property it is evident that the property has not been occupied or maintained for some time and is in a very dilapidated state of repair. As the building is constructed of thick mass concrete and/or stone rubble walls with lime mortar joints it will have no traditional strip foundations and will be constructed of a slightly wider stone foundation which may be at shallow depths. As the roof covering and gutters have not been maintained the ground conditions can become soft under these stone walls which may require underpinning. The damp penetration onto the external stonework has a detrimental affect on the lime mortar joints and any timber in contact with the external walls.
- 5.2 To modernise this building and upgrade the ground floor in terms of insulation, radon barrier and plumbing services the rotten suspended timber floors will require excavating and installation of a new concrete ground floor slab. As existing stone walls may have shallow foundations it may not be possible to excavate down to facilitate the depth of the new floor and insulation therefore underpinning of existing walls may be required.
- 5.3 The walls of this property are of mass concrete and/or stone with lime mortar and from the age of the building the lintels would most likely be of hardwood timber. As the property has not been adequately maintained for some time water has been allowed to penetrate internally due to missing slates, gutters and damaged window and doors. This dampness may result in wetrot of timber lintels and beams. All timber lintels should be replaced with concrete. Cracks to existing stone walls will also require stitching where movement has occurred.

- 5.4 Due to the extent of damp penetration and fact that first-floors have collapsed these floors will require replacement. As the external walls are very damp it would be advisable to support floors on steel beams instead of supporting into existing pockets in the external walls as new timber will become damp which may result in wet-rot or dry-rot of timber.
- 5.5 The fixings for the natural slate are starting to corrode and fail as there are a lot of slipped and missing slates. The entire roof structure will require replacement and it would be recommended to provide a breathable roofing felt under the new slatting battons.
- 5.6 Given the poor condition of this property and the defects encountered it would be the main walls which would only be retained, and these will most likely require underpinning, stitching of cracks, damp proofing and replacing of timber heads. In our opinion it would be cost prohibitive to renovate the existing properties which would require temporary propping and a specialist contractor with experience of such works. There is also the increased risk of unforeseen works and the additional costs associated when renovating older properties.
- 5.7 Newly constructed dwellings can be easier to accommodate insulation, radon barrier/dpm, air tightness, heat recovery ventilation and modern services. Newly constructed properties will have properly designed foundations suitable for the ground conditions and would be significantly easier to heat and maintain.

I trust this report is of benefit to you, however should you have any queries regarding this report, please do not hesitate to contact me.

Yours faithfully



Pauric Loughlin

B.Sc (Hons), AB Eng.

For and on behalf of **Alan Traynor Consulting Engineers Ltd**

**Appendix A
of
Photographs**

1		<p>Aerial View of 42, 43 and 44 Brews Hill. Significant sections of missing slates which is allowing damp penetration internally.</p>
2		<p>Rear sheds along Emmett Terrace to rear of site.</p>

3.





Streetscape from 42 to 44 Brews Hill.



4.





Adjoining property to 44 Brews Hill which has a shared boundary/ party wall.

5.		Corrugated property at 42 Brews Hill which is detached from adjoining property.
6.		Junction of single storey adjoining property to 44 Brews Hill.



7 .		More recent adjoining brick building which is not connected to property.
8 .		Sheds to rear of site overgrown in ivy and in poor condition.

9.	 A photograph showing the rear of an L-shaped building. The main building is a two-story structure with a grey, weathered facade and a chimney. A lower, partially collapsed structure is attached to the side, with its roof and walls in a state of disrepair. A wooden fence is visible on the left side of the lower structure.	Rear of L- Shaped Building. Some partially collapsed lean too roof structures.
10.	 A close-up photograph of a building's exterior wall. The wall is made of mass concrete and shows significant signs of deterioration, including peeling and detached render. A window with a white frame is visible, and a black downspout runs vertically along the wall. A small tree is growing in front of the wall.	Rear of No 44 in poor condition with detached and boast render. Mass concrete walls in poor condition due to damp penetration.

11.	 An exterior photograph of the rear of a building, No 44. The walls are in poor condition, showing significant peeling and detached render. A window with a white frame and a small awning is visible. A black downspout pipe runs vertically along the left side of the wall. The sky is overcast.	<p>Rear of No 44 in poor condition with detached and loose render. Mass concrete walls in poor condition due to damp penetration.</p>
12.	 An interior photograph of a room in No 43. The room is in a state of significant disrepair. The walls are heavily damaged, with large areas of peeling plaster and exposed brickwork. A fireplace is visible in the foreground, and a window with a dark frame is on the left. The floor is covered in debris and appears to be in the process of being cleared or repaired.	<p>Internal view of No 43 with significant damp penetration.</p>

13.	 An interior photograph of a room showing severe structural damage. The ceiling is partially collapsed, with large sections of white plaster missing, exposing dark wooden joists and beams. Yellowish-brown stains, likely from water damage, are visible on the remaining ceiling and walls. A doorway is visible in the background, and some debris is scattered on the floor.	Internal view of No43 with significant damp penetration and collapsed ceilings.
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14.	 An interior photograph of a storage building. The walls are painted a light green color. On the left, there is a wall of built-in wooden shelving units with multiple compartments. A window with a wooden frame is set into the green wall. The floor is partially covered with wooden planks and some debris, suggesting a construction or renovation site. A brick chimney or wall section is visible on the right side.	Existing storage building to rear of No 42.
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15.			Considerable damp penetration to 42 Brews Hill.
16.			Old thatch roof evident above t&g sheeting.