Structural Statement –Existing workshop

Beacon Fell View Holiday Park, 110 Higher Road, Longridge, PR3 2TF

This is a statement in support of the planning application, Proposed conversion of existing workshop to holiday cottage in association with Beacon Fell View Caravan Park. Proposed works to include creation of first floor and balcony, alterations to roof and insertion of new windows

The subject building is a former workshop . It appears to have been most recently used as storage unit

2. Building Overview

- **Type:** Single-storey detached workshop
- **Dimensions:** Approx. 13.8 m x 5.9 m
- **Use (existing):** Storage/workshop
- **Construction:** Stone external walls with internal steel/timber roof structure
- **Condition:** Reasonable for its age and construction type

3. Observations from Site

External Structure

- The building is built of traditional stone masonry with a partial retaining wall on the north side.
- External walls show no signs of significant settlement, bowing, or structural cracking.
- Roof ridgeline appears straight and stable from multiple angles, supporting structural soundness of the building.
- The metal roof sheeting and green profiled metal roof on the rear extension appear modern and intact, though some flashing and guttering work may be required.

3.2 Roof Structure

- Internally, the roof is supported by steel I-beams and timber purlins. These span longitudinally across the structure.
- The steel beams are in sound visual condition with no visible corrosion or deflection.
- Timber purlins and battens appear aged but serviceable; minor rot may exist at bearing ends
- of cladding is metal sheeting, potentially non-original and installed for durability rather than insulation.

3.3 Interior Condition

- The internal area is cluttered with construction materials and storage items, limiting full inspection.
- Stone walls appear plumb and stable internally, consistent with external observations.
- Floor is solid concrete and seems structurally competent, with no visible spalling or cracking.
- No signs of water ingress through the roof or major damp issues on internal walls

4. Existing Plans

- **Plans indicate two zones:** Storage and Workshop.
- **Wall thicknesses and spans** are consistent with load-bearing stone masonry and open-span roof design.
- Wall thickness appears to be consistent with load-bearing function (approx. 450mm)

5. Structural Statement Summary

Building is generally sound and appropriate for residential conversion.

- External walls: solid stone, structurally sound.
- Roof: supported on trusses/purlins, no signs of deflection or failure.
- Floor: solid concrete, suitable for overlay insulation/DPM.
- Reuse of structure is acceptable; minor repairs expected at concealed timber ends.

6. Structural Analysis and Suitability

Component	Structural Status	Action Required
External Walls	Sound, no bowing/cracks	Repointing recommended
Roof Trusses	Sound, steel + timber	Minor repair to timber ends
Roof Covering	Adequate, non-insulative	Replace/upgrade with insulation and membrane
Floor	Solid concrete, no defects	DPM + insulation overlay
Internal Walls	Non-structural	Removal acceptable

7. Structural Recommendations

- Wall Repointing: As part of the conversion, repointing of masonry walls is recommended to ensure structural continuity and weather protection.
- Roof Refurbishment: The roof covering should be removed and replaced with a breathable membrane, new battens, insulation, and either reused or new slates/tiles, depending on condition.
- Purlins/Trusses: Full inspection of timber or steel trusses and purlins is required to confirm suitability and address any end-bearing deterioration.
- Insulation and Lining: Internal timber/metal stud frames can be introduced to external walls to carry insulation and comply with thermal standards without compromising structural integrity.
- Floor: Existing slab appears sufficient to support residential loads. A new insulated slab or screed with damp proof membrane can be laid over the existing floor.

8. Conclusion

The structure is suitable for conversion to residential use, requiring only minor structural maintenance and standard upgrades to comply with Building Regulations. The core stone structure and steel-timber roof frame are in acceptable condition and provide a sound basis for reuse. The existing roof covering could be removed and be re-laid with a new breathable membrane with insulation .The insulative layer is normally bonded directly to the underside of the roof . These would weigh no more than the existing roofing system. Some new door and window openings may need to be installed, in order to achieve the desired layout. Compliance with Building Regulations can be achieved by introducing an internal timber inside the existing external walls, to carry an insulative layer and internal lining (e.g. plasterboard). The second floor would be constructed with timber ,joists and insulation and toungue and groove boards.

We would recommend that the elevation is entirely raked out and re-pointed as part of the conversion process. As part of the conversion process internal walls will be lined with insulated plasterboard. This will improve aesthetic appearance, improve future structural stability and improve weather-tightness. In summary, the building is structurally adequate and suitable for conversion. The existing structural components can be retained and re-used. Internal linings, damp proof membranes, insulative layers, etc. can be installed internally to meet Building Regulations standards. This can be done without overloading the existing structure.