



Timber Frame Repair

The need for repair in a timber structure most commonly arises from moisture related problems, whether past or ongoing. The introduction of water into the structure can lead to rot, biological growth and insect or vermin infestation. Other possible situations that could require repair are material failure due to structural deficiencies inherent in the original design, failure of earlier repair efforts, damage resulting from alteration of the building, or insect damage unrelated to moisture.

Any repair campaign must include identification of the root cause of the problem and resolution of the situation in the case of an ongoing problem. Identifying the source of the problem may be as simple as indentifying a roof leak or it may be a complex investigation involving multiple issues.

Guidelines for Timber Frame Repair

- Research and document the history and prior repairs to the building. Photographs, measured drawings, framing plans or floor plans of the building can help to understand the frame before opening the building envelope.
- Assess the structure following the guidelines laid out in the white paper on *Timber Frame Repair Assessment and Planning*. Ideally the building will be opened up at this stage in order to access all structural members and determine the complete scope of work.
- Plan the repair in detail after assessing the extent of the damage. The variations of original construction, types of damage and repair techniques are nearly endless however a standard approach can guide the process. Depending on the situation it may also be necessary to engage a structural engineer.
- Execute the repair in a timely manner. A building is very vulnerable to damage when the weather envelope is disturbed and when structural elements are compromised or missing.
- Document the project both during the work through photographs and field reports and at the end of the project through the use of a completion report.