

ROOME & GUARRACINO, LLC

Consulting Structural Engineers

300 Tradecenter, Suite 3540
Tel: 617.628.1700

Woburn, MA 01801
Fax: 617.628.1711

Below are some of the observations were made during R&G's site visits to the existing Hager Homestead in Littleton, MA:

- Existing sill plate have rotted and has failed in compression causing the back right corner of the building to sag. The decay of the sill plate has caused increased stress in other wood framing members and cracks in the existing masonry wall. This resulted in the need for a new foundation wall and removal and replacement of masonry wall. Some additional reinforcement of existing wood members maybe required.
- Wood sill plate along the front and back of the building need to be removed and replaced in kind with PT. The damage (rotting of wood) was caused by insects and/or moisture.
- The damage indicated in item 2, also affected the studs within the existing exterior walls from the ground level up. This resulted in the need to sister the existing studs.
- Additionally due to the damage in item 2, all the first floor framing approximately 5 feet from the front and back exterior walls needs to be removed and replaced.
- Existing stud and bracing member were cut during a previous renovation. These members must be repaired and/or replaced.
- Some renovations that were done in the 70s, the wood framing installed needs to be removed, reinforced, or replaced.
- Existing wood lintels within the existing masonry walls have begun to decay and need to be replaced with steel lintels per structural drawings. The decay in existing masonry has caused some cracking.
- In review of one of the existing chimney in the back right corner of the existing building, rotting of the existing roof framing was observed resulting in the need to reinforce the existing framing. It is our understanding that the 4 existing chimneys were built at the same time and we expect similar water damage at other 3 locations.

This is a considerable amount of work required to restore the existing building. As the General Contractor demo/uncover existing conditions, there is a good chance that additional existing conditions will be discovered resulting in further work being required.