

Project: **117 Dartmouth Roof Assessment**
Portland, ME

Date of visit: November 14, 2017

Weather: 38 F, Clear

To: Jonathan Loboizzo
Burnham + Loboizzo Builders

Cc: Albert Putnam Associates, LLC

At your request, we visited the site to evaluate the existing condition of the roof framing at 117 Dartmouth. We understand the goal of our evaluation is to determine the existing condition of the roof structure and describe remedial action recommended/required. The following observations are based on conditions readily accessible to view at the time of our visit. See the images embedded within memo for reference purposes.

The 2-story, gable roof building with a footprint of approximately twenty eight (28) feet by fifty (50) feet appears to be constructed of dimensional wood rafters, floor joists and interior/exterior bearing walls (Photo A). Rafters were observed spanning approximately fourteen (14) feet from a symmetrically located ridge to each eave. Elevated collar ties located at every other rafter were observed at approximately 8' above attic floor with no structural ridge present. Rafters were observed bearing on a double 2x4 dimensional lumber top plate at the exterior walls. Attic floor joists appeared to be fastened to the exterior wall studs just below the top plate. Attic floor joists were observed spliced at a continuous interior bearing wall which appeared to be offset from the ridge above. The interior bearing wall appeared to stack from floor to floor. At the first floor, a continuous floor beam was observed carrying the bearing walls above. The first floor beam was found to be supported by steel pipe columns spaced at seven (7) to eight (8) feet on centers. It appears that the exterior bearing walls are supported by a cast-in-place concrete foundation wall with the interior steel posts bearing on unknown foundation elements.

Many of the rafters and collar ties were found with significant fire damage with approximately one quarter of an inch (1/4") or greater of surface char depth (Photo B). The northwest gable end wall framing was also found with significant fire damage and char depths, however, no significant fire damage was observed at the southeast gable end wall or at either eave wall (Photo C). The attic floor sheathing appeared to be slightly charred along the top surface but the underside of the board sheathing and the attic joists below showed no signs of fire damage.

In summary, the roof framing and northwest gable end wall framing were found with significant fire damage and we believe them to be structurally compromised. As such, we recommend the roof framing (roof sheathing, rafters and collar ties) and northwest gable end wall framing be demolished and rebuilt in a way that does not increase the load being delivered to existing structure below at both interior and exterior of building.



Photo A



Photo B



Photo C

We trust this letter meets your needs at this time. We look forward to answering any questions and helping to assemble a plan forward.

Respectfully submitted,
Albert Putnam Associates, LLC



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