ASSOCIATED DESIGN PARTNERS INC.
80 Leighton Road • Falmouth, Maine 04105
Office: 207.878.1751
Fax: 207.878.1788
e-mail: adp@adpengineering.com

April 26, 2026 ADP #26068

Jamie and Sadie Rousseau
16 Pines Road
Benton, ME 04901

Dear Jamie and Sadie:

Associated Design Partners, Inc. has completed an on-site visual review and follow-up engineering evaluation after a fire loss at 16 Pines Road, Benton, Maine. You originally contacted my office requesting engineering investigation services on March 4, 2026. A site visit was arranged and conducted on April 2, 2026.

You requested I review this property with specific focus on determining the extent of fire related damage to the foundations and to make recommendations regarding the usability of the foundation. This report provides a summary of my investigations thus far that includes defining the extent of fire damage and provides a code/industry standard assessment that defines applicable reconstruction requirements that might be warranted along with an evaluation of the foundations to determine if they are salvageable.

PROPERTY DESCRIPTION

The subject property can be described as two-story New England style house with a detached two car garage. The foundation is non-uniform, originally constructed out of fieldstone and granite slab, areas have been replaced with poured concrete walls topped with concrete masonry units (CMU). One area of stone foundation has been reinforced by a poured concrete wall.



ASSIGNMENT

Associated Design Partners, Inc. was retained to perform an engineering evaluation of the subject property. It was reported that movement and displacement of the foundation occurred following a fire event affecting the second story of the residence. The scope of this assignment was to provide an independent and unbiased assessment of the foundation.

INVESTIGATION AND OBSERVATIONS

During my site visit I made observations, collected photographs, took measurements, and documented my findings in my engineer's field book. Copies of the photographs have been attached for reference to this report. Present at the site visit was my colleague Jake Deslandes who assisted with the investigation.

1. Jake Deslandes of our office and I met you at the property, where you provided background information regarding the building and the fire. You reported the house was constructed circa 1900 and you purchased in 2021, and that no construction projects have occurred during your ownership.
2. We reviewed the exterior of the property, documenting foundation dimensions and observing materials above grade. A drip line was observed in the soil beneath the eaves, and gutters were not present.
3. The foundation consists of fieldstone/rubble masonry, granite slabs, cast-in-place concrete, and CMU block, with multiple areas of patchwork repairs at transitions. At the exterior, the rubble masonry exhibits mortar deterioration, loose stones, and localized voids, while the above-grade CMU sections appear serviceable; overall, the foundation reflects age-related deterioration and piecemeal repairs.
4. CMU sections are located at the front (south) and at portions of the rear and right (east), with the remaining portions consisting of fieldstone and granite.
5. Interior basement observations indicate the exterior CMU walls are supported by a newer cast-in-place concrete foundation system bearing on spread footings. This newer wall section measures approximately 53 feet along the front and 30 feet along the rear and right side and includes a modern precast concrete bulkhead at the rear.
6. The poured concrete walls and overlying CMU sections did not exhibit obvious visually apparent signs of displacement or deformation.
7. Approximately 38 feet of older fieldstone foundation is present along the right side of the house and approximately 59 feet along the left side.
8. The northwest (rear left) portion consists of fieldstone below grade with granite slab on edge above grade. A secondary interior concrete wall, approximately 1'-8" deep and nine feet long, has been installed at this location to improve wall integrity.
9. The poured concrete and CMU sections are integrated with the existing fieldstone foundation at several locations, where minor cracking was observed at transitions.

10. Portions of the fieldstone walls exhibit limited inward displacement. Mortar joints are cracked and loose in many areas, and spray foam and fiberglass insulation have been applied between stones; variations in color and debris adhesion indicate portions of the spray foam have been in place for an extended period. You indicated the insulation was installed to limit pest intrusion.
11. The basement floor consists of concrete and exposed soil, with the concrete exhibiting localized cracking and heaving.
12. The fire did not extend into the basement, and no direct fire-related damage was observed at the foundation walls.
13. A limited review of the first-floor interior indicated no extensive fire damage; however, evidence of water exposure from was observed.
14. Extensive fire damage was observed at the second level, primarily at the front bedroom where the fire originated, with soot and smoke deposition extending beyond this area.
15. We reviewed a fire report authorized by Chief Travis Leary, which states approximately 15,000 to 18,000 gallons of water were used to extinguish the fire, and that “due to fire suppression there was a lot of water damage to the 1st floor and basement”.
16. Based on field measurements, if all firefighting water had been contained within the basement, the estimated maximum depth would be approximately two and a half feet, which is less than half the height of the foundation walls. Given the presence of exposed soil and a compromised concrete slab, it is likely a substantial portion of this water infiltrated into the ground prior to freezing.
17. We were provided with a home inspection report prepared for you by Castle & Cottage Home Inspections, LLC before you purchased the property in 2021. Comparison of the photographs and information provided with the observations made on site indicates that the majority of spray foam was in existence before your purchase of the property. Not all areas of foam were documented in the 2021 report which suggests possible additional application post-purchase. Also mentioned throughout this report are signs of moisture and water intrusion.
18. We were provided with an engineering report prepared by Envista Forensics on behalf of State Farm Insurance on February 13, 2026. Review of this report, which includes photographs of the basement taken on February 11, 2026, show signs of frost on the interior of the foundation walls. No signs of ice or standing water are present on the floor of the basement in these photographs.

19. We were provided with a report prepared by Garrett Allen Lower of Pine State Code Solutions, who was retained by the Town in the capacity of Code Enforcement Officer, addressing the structural condition of the foundation. Lower's report primarily references the International Residential Code (IRC), which has been adopted by the State of Maine; however, the cited IRC sections pertain to the design and construction of new residential dwellings and are not applicable to existing structures unless specifically required under codes governing existing buildings. The report references section headings without inclusion of the corresponding code language and instead provides summary opinions that are not supported by direct citation of the referenced section language. In our opinion, these summaries misrepresent the context and intent of the referenced sections. Lower also makes one general reference to the International Existing Building Code (IEBC), which is applicable to this structure; however, no specific section language is cited, and the summary provided does not accurately reflect the intent or application of the IEBC.

CODE STUDY - MAINE

The purpose of conducting this formal code study is to help the involved parties understand code mandates for structural repair issues and other limited requirements imposed by applicable law and ordinance. We reviewed and referred to the code research contained in the project materials, together with the 2021 IRC Appendix J and 2021 IEBC provisions that govern existing residential buildings being repaired.

Based on the project materials reviewed, the Maine Uniform Building and Energy Code (MUBEC) applies to buildings constructed or renovated in Maine. The project materials further indicate that enforcement by municipalities depends on population and local action, but that the code framework still governs design and construction activities in the State. For purposes of this assessment, the following code framework was considered applicable to this loss:

- 2021 International Residential Code (IRC);
- 2021 International Existing Building Code (IEBC);
- 2021 International Energy Conservation Code (IECC);

Because this is an existing one-family dwelling undergoing fire-loss restoration and the primary focus of requested investigation was the foundation, the principal provisions reviewed were 2021 IRC Appendix J, Existing Buildings and Structures. Equivalent compliance under the IEBC may also be accepted by the authority having jurisdiction.

Work Classification and Existing Building Framework
Appendix J regulates repair, renovation, alteration, and reconstruction of existing buildings and is intended to encourage the continued safe use of existing buildings without requiring wholesale upgrading of unaltered portions. Based on the scope of restoration contemplated for this property, this work is most appropriately classified as a Repair.

Even if the authority having jurisdiction were to classify some portion of the work as Renovation, the outcome of our findings would not materially change. The project still consists of replacing damaged framing and finishes and restoring the structure to a pre-loss condition, rather than reconfiguring the building or constructing a new structure.

Appendix J further provides that work on existing buildings shall not cause the structure to become unsafe and shall not make the building less compliant than it was before the work was undertaken. The code framework does not require full upgrading of unaltered portions of the building solely because repairs are being performed.

Appendix J defines a dangerous condition as one resulting in an overload exceeding 150 percent of the stress allowed for the member or material. In our opinion, the foundation appears to be adequately supporting portions of the structure that require correction as part of this repair.

PROJECT-SPECIFIC CODE FINDINGS

- The work is appropriately classified as a **Repair**.
- The code does not require wholesale replacement of the entire structure where damage is localized.
- Structurally compromised framing must be removed, replaced, or repaired.
- New structural elements must comply with current code.
- Smoke alarms, carbon monoxide alarms, and fireblocking are required where triggered by the scope of work.
- Full-building insulation or window upgrades are not mandated solely due to this fire-loss repair.
- Replacement or repair of the foundation is not mandated solely due to this fire loss repair.

This code study should be understood in the context provided. It is based upon our review of the code research contained in the project materials and our understanding of the proposed repair scope. If differing conditions are disclosed during demolition, or differing interpretations are imposed by the authority having jurisdiction, the findings of this code study may require revision.

CONCLUSIONS

My conclusions are based upon my observations, evaluation, experience, and understanding of conditions as represented in this report. My conclusions are provided with reasonable engineering certainty.

This residential structure sustained a fire event centered in the front room of the second story. The wall, ceiling, and roof framing of the second story, and attic space above where the fire originated, sustained the greatest structural damage. The fire did not spread down to the basement or foundation area. The first story and basement remain directly unaffected by the fire, but signs of water intrusion from firefighting were present.

Given the statements in the provided fire report and our observations, it is certain that a large amount of water was applied to the structure during firefighting. It is my opinion, to a reasonable degree of engineering certainty, that the foundation did not sustain measurable damage as a result of direct water exposure or freezing of water associated with the subject fire event. The newer concrete and CMU portions of the foundation represent approximately 50% of the foundation system. These sections did not exhibit displacement, deformation, or distress indicative of water-related impact following the event. The observed cracking, minor displacement within the fieldstone walls, and general deterioration are consistent with long-term age-related conditions and historic performance of the foundation system. There was no evidence to suggest that the foundation was weakened or structurally compromised due to water exposure associated with the fire event. The fieldstone foundation sections show limited signs of displacement, which was likely existing prior to the fire event. The proximate cause of this displacement is lateral earth pressure and ground movement. Accordingly, the conditions observed are attributed to pre-existing deterioration and not to the effects of the subject loss.

Anticipated demolition of the structure will occur well above the foundation, and as such, demolition activities are not expected to directly impact the existing fieldstone foundation if performed with appropriate care. However, the fieldstone foundation exhibits pre-existing age-related deterioration, including mortar loss, localized displacement, and voids, which will require remedial repair to improve its condition. While these repairs are not mandated by current building code solely as a result of the fire event, they are recommended as a prudent measure if the foundation is to be retained and incorporated into future construction. This evaluation does not constitute an endorsement of the fieldstone foundation for reuse without such repairs and further consideration as part of any proposed reconstruction.

LIMITATIONS OF THIS INVESTIGATION, RECOMMENDATIONS & REPORT

This limited evaluation summarizes, in a general sense, the basic physical condition of the readily observable, field measured, and/or sampled conditions, identified herein. The user of this report can only rely on the information to the extent which it has been represented in this report.

This letter report should be understood in the context provided. It is based upon visual observations, and understanding of conditions as represented. If varied or unforeseen conditions are disclosed, Associated Design Partners Inc. reserves the right, without prejudice, to reconsider and alter our conclusions and findings.

Your questions and comments regarding this report are welcome.

Sincerely,

Warren Gerow, P.E., DFE, PLS
Forensic Engineer
Associated Design Partners Inc.



Attachments: Photographs

Electronically signed
and delivered April 26, 2026