Building Stablity Report

256 Main Street, Berlin New Hampshire

Prepared by :

Toufic Awad

Ph : 7867778727
Email: toufic.awad@twaengineers.com
Address: 41 Centimeters Dr, Mauldin, SC 29662

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1. Project Overview

1.1. Assignment

We have conducted an engineering evaluation at 256 Main Street, Berlin, New Hampshire. Enclosed within are our findings, analysis, and conclusions. The objective of this assessment was to ascertain the stability and adequacy of the current structural components of the building. In fulfillment of this task, Toufic Awad visited the site on 2/6/2024. This document comprises a detailed review of the data collected during the assessment, along with an analysis and conclusions regarding the condition of the property as observed during our evaluation. The conclusions presented herein are drawn from the information accessible up to the present date.

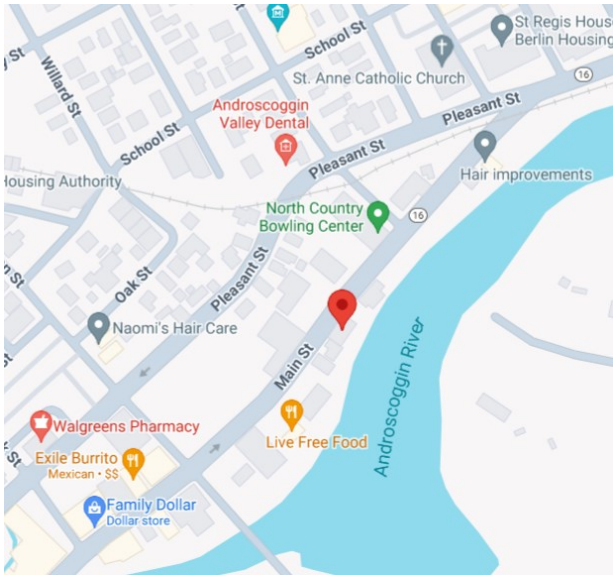


Figure 1.1: Location of the Building

1.2. Background

Information retrieved from the Coos County Property Appraiser's online database reveals that the structure was built in 1900, and the current owner has held ownership of the property since July 2006. The building comprises three stories and occupies an approximate area of 4791 square feet.

1.3. Methodology of Site Assessment

Our assessment is based upon a visual evaluation of the structure. No destructive testing was completed. Construction plans were not reviewed.

1.4. Building System Description

The building is described as a three-story residential structure with a basement and two additional levels (refer to Figure 1.2). The exterior walls predominantly consist of brick, while retaining walls are constructed using sandstones. The basements feature concrete slab-on-grade construction, while the upper levels and roofs are constructed with timber framing.

Figure 1.2: Front Elevation of the Building

1.5. Observations

Observations were photographed to document distress and relevant conditions at the subject property on the date of the site visit. Not all damage or distress that may be present was necessarily observed or photographed; however, the selected photographs provide an indication of their types, severity, and distribution. They may also document unusual or contributing conditions that may exist. Photographs taken to document our findings and observations are attached to this report. The following observations were noted during the examination:

2. Observations and Recommendations

Observations of the Subject Property were photographed during our site visit to document relevant conditions and distress found at the subject property in relationship to defined scope found in the assignment section of this report. The selected photographs in this report are a representation of the type and condition of distress found during our site visit. In addition to the representative photographs a brief analysis of the photos may be present below the photos.

	
Observation: Building Front Elevation	**Observation: Building Side Elevations**
Additional Comment(s) (if Applicable):	

Observation: The exterior wall has incurred significant damage, which has consequently compromised the lateral integrity of the building.

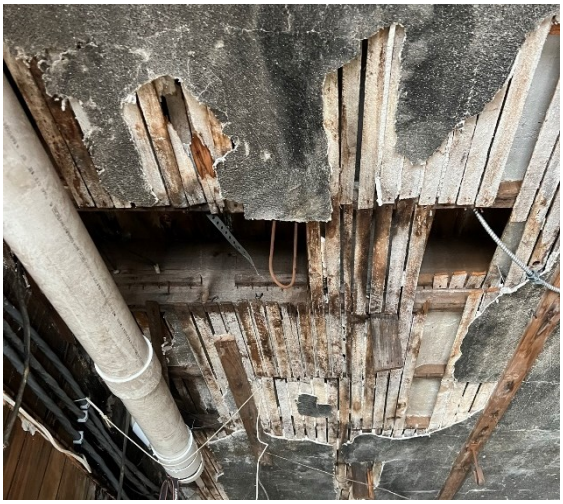
Recommendations: The damaged areas of the brick walls will be reconstructed without compromising the stability of the existing building.

Observation : Stairways of building Seems to be Slippery

Recommendations : Evaluate the possibility of replacing the current stairway surface with materials that offer better slip resistance, such as rubber or textured surfaces.

Observation: The existing floor joists have observed significant cracking and deterioration.

Recommendation: It is advised to install new floor joists throughout the entire area to mitigate the risk of hazardous damage.






Observation: The existing ceiling joists and sheathing have undergone substantial deterioration.

Recommendation: It is advised to install new ceiling joists throughout the entire area to mitigate the risk of hazardous damage.


Observation : The exterior brick wall should be utilized as a shear wall to provide lateral stability for the building.

Recommendation : There was no significant damaged were noted on the brick walls


Observation : Sandstones are utilized as the material for the retaining walls of the building.

Recommendations : There was no significant damaged were noted on the Sand stones

Observation : This appears to be a tank or a similar structure, found in the basement area

Additional Comment(s) (if Applicable) :

Observation : Significant damage was encountered in the load-bearing corner wall/column of the building, which has affected the gravity load path of the structure.

Recommendations : The damaged areas of the brick column/wall will be reconstructed without compromising the stability of the existing building.

Observation: Signification corrosion was observed at steel angles at rear side of the building

Recommendations : The corrosion should be removed down to the bare steel surface, followed by repainting the entire affected area of the steel.

3. Conclusion

The analysis of available evidence related to this project supports the following:

1. The entire damaged floor framing and sheathing system will require replacement as part of the floor structure replacement.

2. All damaged brick wall portions shall be constructed as per local building standards.

3. All corroded steel sections shall be repaired as per the recommendations.

Please contact us should any questions arise concerning this report, or if we may be of further assistance.

Respectfully submitted,

Toufic Awad.