L & L STRUCTURAL
ENGINEERING SERVICES, INC.
Six Q Street
South Portland, ME 04106

Telephone: 207 767-4830

December 26, 2017

Jeremy Moser
Studio Mnemosyne
P. O. Box 5360
Portland, Maine 04101

Subject: Residential Building – located at 40 Bowdion Street, Portland, Maine
Existing First Floor Reinforcement beneath Kitchen & Kitchen Renovations

Dear Jeremy,

As per your request we have reviewed the proposed structural indicated on the drawings S1.0 "First Floor Framing Plan and Section A_A"; S1.1 "Second Floor Framing Plan"; S1.2 "Structural Details 1. B/B Revised East Exterior Section at Kitchen/Basement" & "Detail 2. Section at Kitchen/Basement Lally Column" prepared by Jeremy Moser/Studio Mnemosyne dated 13th December, 2017 for the proposed first floor reinforcement beneath the kitchen area and first floor renovations in the kitchen area. The purpose of our review was to analyze and design the reinforcement for the first floor beneath the kitchen to support the additional weight of the proposed insland countertop, cabinet finishes, and floor finishes & design the headers and structural jambs for the two proposed openings in the exterior walls of the kitchen.only. We are not reviewing, analyzing and/or designing any other unaffected portions of the building, the existing foundation, nor the existing lateral load resisting system for the building. Our analysis utilized the 2009 IRC International Residential Building Code adopted by the City of Portland, Maine. In addition, our analysis considered the latest edition of the NDS National Design Specification for Wood Construction published by the National Forest Products Association and the Manual of Steel Construction published by the American Institute of Steel Construction.

The proposed structural design meets or exceeds the code stipulated design requirements, is acceptable to support the anticipated structural loading, includes modifications as directed by our office, and is in general compliance with our structural design concept.

If you have any questions, please do not hesitate to call.

Sincerely,

L&L Structural Engineering Services, Inc.

Joseph H. Leasure, P.E.
cc: File

STATE OF MAINE
JOSEPH H. LEASURE
No. 6242
LICENSED
PROFESSIONAL ENGINEER

general notes

The site is located at 40 Bowdoin Street Portland

1. All dimensions and conditions must be verified in the field. Any discrepencies shall be brought to the attention of the project supervisor and owner before proceeding with that portion of the work.

2. All proprietary products shall be installed in accordance with the manufacturers written instructions.

3. The structure is designed to be self supporting and stable after the erection is complete. It is the contractor's sole responsibility to determine erection procedures and sequencing to ensure the safety of the building and its components during erection. This includes the addition of necessary shoring, sheeting temporary bracing, guys or tie-downs. Such material shall remain the property of the contractor after completion of the project.

4. All applicable Federal, State, and Municiple regulations shall be followed, including the Federal Departtment of Labor Occupational Saftey and Health.

5. **DESIGN LOADS**

Building Code IRC (2009) International Residential Building Code

Design Live Loads: Ground Snow Loads= 50 PSF

Roof .....40 psf + Drift as applicable

Living Areas.....40 psf

Design Wind Loads are based on C using 100 mph basic wind speed

Seisimic Design Utilizes a Bearing wall system: Light frame walls w/ shear panels--wood structure panels/sheet steel panels. Analysis procedures shall be equivalent Lateral Force Procedure per IRC 2009

6. All Timber framing shall be in accordance with the AITC timber construction manual or the national design specification (NDS) latest edition

7. Individual timber framing members shall be visually graded, minimum grade #2 Spruce-Pine-Fir (SPF), kiln dried to 19% maximum moisture content.

8. Timber shall be southern yellow pine treated with ACQ water borne preservative in accordance with AWPA treatment C1 with 0.40 PCF retainage for items in contact with roofing, masonry or concrete with 0.60 PCF retainage for items in contact with earth.s

9. Metal connectors shall be used at all timber to timber connections or as noted on the design drawings. All metal connectors in contact with pressure treated timber shall be hot-dippped galvanized.

10. Provide Simpson H2.5A hurricane anchors where timber framing and/or trusses bear on bearing walls and structural beams.

11. Nails and screws not specified shall conform with IBC 2009. All nails and screws in contact with pressure treated timber shall be stainless steel.

12. Provide 1/2" thick APA rated exterior wall sheathing fastened ***w/*** 10d nails @ 4" o.c. at panel edges and 6" o.c. intermediate. Lap sheathing 1'-0" minimum over existing structure (Where applicable).

13. Provide 5/8" thick APA rated roof sheathing fastened w/ 10d nails @ 6" o.c. at panel edges and intermediate.

14. Provide *3/4"* thick APA rated floor sheathing fastened ***w/*** construction adhesive and 10d ring shank nails @ 6" o.c. at panel edges and intermediate.

15. LVL indicated laminated veneer lumber beams manufactured by Boise Cascade or approved equal.

16. All work is to be carried out in a professional and workmanlike manner complying with all manufacturers' specifications

17. Do not scale plans.

18. Provide solid blocking at all millwork.

19. All trades are responsible for reviewing the Architectural drawings for details and coordinating relevant conditions with their particular trade.

Inspections Division
Date: 02/14/18

location key

≈ 340 Sq ft in work area

12_13_17
bowdoin street
StructuralNotes

S-1.0
STRUCTURAL NOTES