PINKHAM & GREER
CONSULTING ENGINEERS

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CITY OF PORTLAND, MAINE RESURGAM
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/11/15

Mr. John Medici
KR Stiffler Construction
32 Tandberg Trail #3
Windham, ME 04062

May 4, 2015
File: 15339

RE: 40 Deering Avenue

Dear John:

It was a pleasure to meet today at the 40 Deering Avenue address to review the existing conditions of the structure that was damaged in a September 2014 fire. The building is a wood framed two-story apartment building with a full basement. According to you (and a Google Earth view we reviewed) the roof was a pitched roof with a hip roof section at both the front and rear of the building. Each hipped section also had a "dog-house" dormer at the center of the hipped area. At the rear of the building (west side) there was a flat-roof ell with storage areas and porches on both floors of the building. There are two brick masonry chimneys which serve wood-burning fireplaces in the building.

We went up onto the attic floor to review the existing conditions. The fire completely destroyed the roof structure, and roof debris and partial remains of the front dormer are sitting on the attic floor/2nd floor ceiling framing. The fire also destroyed the ell and porches at the rear of the building. The chimneys are still standing, but are in poor repair where visible in the attic area.

The attic floor framing appears to be in no structural distress, as there are no visible signs of significant deflection of the ceiling. The plaster is missing from large sections of the wood lathe on the second floor ceiling, probably due to water damage. This actually reduces the weight that the attic floor framing is currently supporting. We visually reviewed the window heads at the second floor for signs of structural distress or distortion and found none.

The same is true for the first floor ceilings/second floor framing. The plaster is missing from large sections of the ceilings, but the floors are reasonably true and the window openings do not show signs of distortion or distress.

We went into the basement and did not see any obvious signs of structural distress or distortion. The framing is rough sawn timber floor joists and beams supported by steel pipe columns.

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We do not think the overall building is an imminent public safety concern, or is going to structurally fail due to controlled demolition operations. We think the building is capable of self-supporting during controlled demolition operations.

We recommend that the two brick chimneys be demolished using boom-lift(s) for access to the upper sections of the chimneys, and removed down to the attic floor line. We understand that the preliminary plan is to retain the remainder of the chimney for re-use using a liner system. The remaining sections of the chimney (from attic to basement) can be reviewed for condition following gutting of the building. It appears that the upper section of the chimneys can be removed using hand tools and the brick put into dumpsters for disposal.

After the chimneys are removed, the roof debris can be cut up and lowered into the dumpsters staged on the driveway on the south side of the building. In our opinion, this work can be safely performed from the majority of the attic floor area. The possible exception is the west end of the building where the fire was concentrated, and this can be determined during debris removal in the area.

Following roof debris removal, any sections of attic floor framing that are found to be damaged will be removed. Depending on the extent of attic floor joist removal, temporary wood joist framing will be added to adequately brace the top of the second floor walls to remain.

We recommend the sidewalk in front of the building be cordoned off with barriers during a portion of the demolition work to prevent pedestrians from using the sidewalk during that time. This closure period would only be for demolition work of the roof debris and attic floor at the front 3rd of the building, as well as the two brick chimneys. Following this work the sidewalk can be reopened.

Following this, remaining ell framing at the rear of the building can be removed as well as the debris on the ground. At that point, the hazards to structure from the fire are removed and gutting of the building can commence. After the building gutting is complete and the primary structure is exposed, we will perform another visual review to specifically review the condition of the framing.

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In our opinion, following the procedure and steps outlined above will result in a demolition process that does not cause a concern for public safety or a hazard to the neighboring structures.

Please let me know if you have any questions or comments regarding this report. We look forward to working with you on this restoration project.

Sincerely,

Pinkham and Greer, Consulting Engineers

STATE OF MAINE
JAMES A. MORAN III
No. 4587
LICENSED
PROFESSIONAL ENGINEER

May 4, 2015

James A. Moran III, P.E.