## **ROOME & GUARRACINO, LLC**

## **Consulting Structural Engineers**

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September 16, 2020

Mr. Samuel Kachmar 207 LakeView Ave Cambridge, MA 02140

Reference: 207 LakeView Ave - Cambridge, MA

Subject: September 15<sup>th</sup>, 2020 Structural Review

## Dear Sam:

This letter confirms my visit to the above referenced address at your request to perform a structural review of the existing building structure and foundations for the single-family residential house. My field observations are only visual surface observations, and I have not cut any holes in the building finishes to verify structure, nor has any testing been performed to determine the structures underlying conditions.

The house is a two-story wood framed Italianate Victorian with a basement built in 1876. See picture 1. The review took place from inside and outside and at the basement level. I proceeded onto the property and to the rear to enter the basement level and immediately noted that the sides and rear foundation walls are in poor condition. See pictures 2. and 3. The foundation walls consist of stone for the lower portion and masonry for the upper portion. Mortar and masonry deterioration are evident throughout with voids in the stones and evidence of significant moisture infiltration. The masonry mortar joints have deteriorated in the brick and stone and there are areas where the masonry itself has deteriorated beyond repair.

A review of the exposed first framing revealed many deficient conditions, including joists pulling away from the sills and unsupported, undersized framing, added columns with timber beams to shore areas which have dropped, masonry piers which have failed and evidence of moisture and deterioration in the wood framing itself. I noted the timber framing is undersized with large splits in wood joists and improper framing throughout. See pictures 4. and 5. I also noted the masonry flues in the basement to be deteriorated at their base and in need of removal. See picture 6.

I proceeded to the first floors and second floors of the house, where no structure is visible due to the finishes being intact. I did note several areas throughout the house where floors are sloping, cracks in walls are visible and doorway are out of square. These issues noted are evidence of significant movement over a period of time and indicative of the issues noted in the basement and first floor framing.

I proceeded outside to view the exterior of the house. I noted the portion of masonry foundations above grade. Although it appears there has been some repointing, the mortar joints in many areas are in need of repair. See picture 7. Also the masonry at the rear entryway into the basement has bricks which have displaced. See picture 8.

## **Conclusions & Recommendations**

The overall condition of the foundation walls viewed on site are in very poor condition and could become unstable due its present state; i.e. masonry and mortar deterioration. The foundation walls are beyond repair. Also, the first floor framing in my opinion is also in very poor structural condition. Many cracked joists and beams, undersized framing, movement and excessive deflection are noted throughout and it is the main cause for the issues noted in the finishes and floors of the first and second floor.

Given the above noted conditions it is my professional opinion that the house is in poor structural condition, especially given the failing foundation walls, which could collapse at anytime without warning. The house has exceeded its life expectancy. It is my professional opinion that the house be "razed" to eliminate the danger of a possible collapse, which could endanger people and/or adjacent building.

This letter report addresses only those structural problems referred to above and observed during this walk-through. Other structural problems may be concealed behind finishes, plaster ceilings and walls, since few of the structures were exposed during the visit. Although care has been taken in the performance of the inspection, no representation regarding latent or concealed defects, which may exist, is made.

Should you have any questions or require further assistance, please feel free to call me.

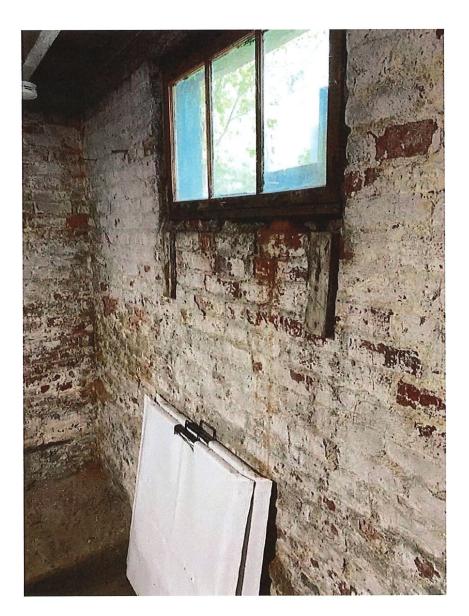
Very Truly Yours, ROOME & GUARRACINO, LLC

> GUARRACINO STRUCTURAL

Carmine Guarracino, P.E. Partner



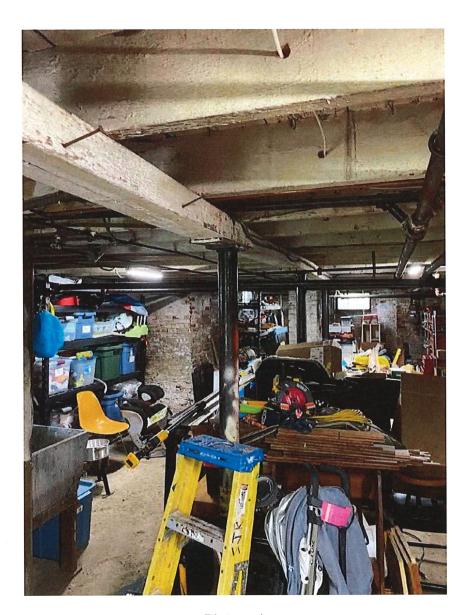
Picture 1.



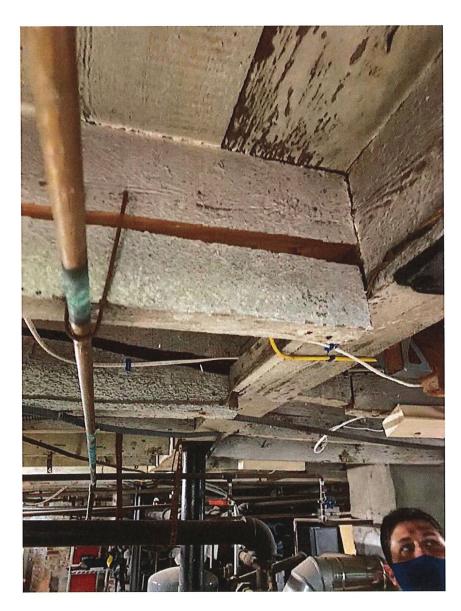
Picture 2.



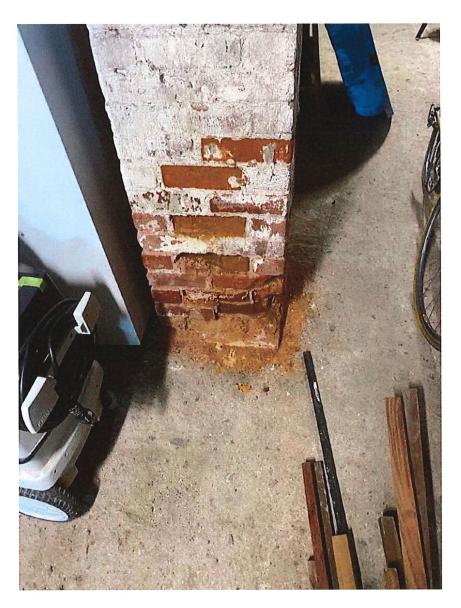
Picture 3.



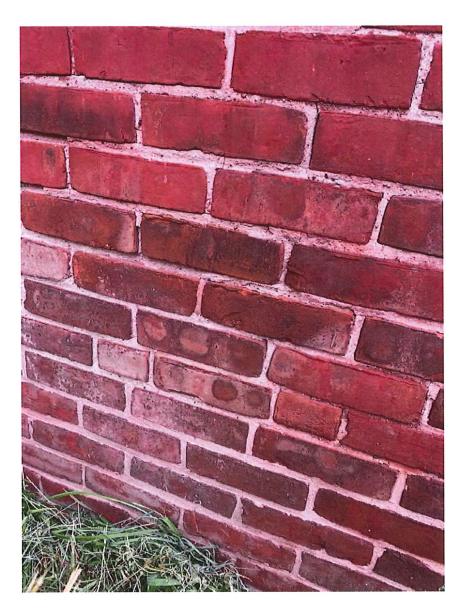
Picture 4.



Picture 5.



Picture 6.



Picture 7.



Picture 8.