PETRUCCELLI ENGINEERING

RUDOLPH C. PETRUCCELLI, P.E.
Principal

March 10, 2016

Mr. Peter Stolatis
427 Bedford Road
Pleasantville, NY 10570

RE: Structural Inspection – Entry Building & Shed
36 N. Water Street
Ossining, NY 10562

Dear Mr. Stolatis:

Pursuant to your request, this office performed an inspection of the above referenced premises on March 9, 2016. The purpose of the inspection was to determine the structural integrity of the entry building and of the shed at the rear of the property.

OVERVIEW

The Entry Building at the front of the site was locked at the front and back and the owner's representative provided access. The shed in the back did not have a locking door so entrance was unhindered. Both buildings were vacant and empty with the exception of some debris, tools and storage boxes.

EVALUATION

Entry Building:

The building measures approximately 34' x 20' interior with a 17' height to the bottom of the gable rafters and 23' to the bottom of the ridge. The walls are constructed entirely of masonry brick units, 4-5 wythes thick. The interior of the brick has a stucco veneer and the exterior is exposed. The foundation of the building above grade is unit masonry brick as well and the gable roof is wood framed.

The wall thickness narrows as the wall increases in height and the wall appears to be 2 wythes thick at the top where the rafters bear. The two longer walls have empty beam pockets in them where the ceiling joists used to sit. There are no ceiling joists remaining in the building. The wood rafters are spaced approximately 24" on center and there are collar ties at approximately 1/3 of the roof height down from the ridge. There are signs of water damage on the underside of the roof sheathing, on the rafters and on the bearing plate.

There are serious defects in the bottom courses of brick from the foundation up approximately 4-5 feet above the floor slab. Signs of water damage from flooding are evident in the brick joints and in the composition of the bricks themselves. The bricks are deteriorating due to extended exposure to flood waters to the point where the inspector was able to crumble several of the brick faces into dust with bare hands.

Approximately 50% of the mortar joints are missing along the perimeter of the building and voids are evident reaching in some cases 3 wythes deep. There are settlement cracks on two corners of the building running on a 45 degree angle up approximately 10 courses of brick.

The lack of ceiling joists and insufficient collar tie locations have caused the roof to push out on the side walls and there is evidence of bowing along the top 2 feet of the bearing walls. The roof itself is water damaged and the structural elements are no longer in serviceable condition.

Rear Shed:

The rear shed measures approximately 22' x 15' interior and is constructed identical to the Entry Building. The entire bearing wall and foundation wall systems are constructed of unit masonry brick with mortar joints which have eroded beyond repair due to excessive flood damage. The bearing walls in the shed have shifted out at the top under the weight of the roof and snow loads forcing the top 12" of brick approximately 2" past the façade. The roof damage in the shed is even more severe than in the entry building as there are holes in the roof with mud and water on the floor of the shed.

CONCLUSION

These buildings are solely supported by a brick foundation and brick bearing walls which have been irreparably compromised by flood conditions, age, and the elements. The lack of lateral support of the bearing walls due to the damaged or missing roof elements has caused irreparable damage to the upper parts of the walls as well.

The buildings are beyond any feasible repair. They are structurally unsound and unsafe. Due to their dangerous structural condition, this office recommends prohibiting access to these structures to ensure life safety.

Sincerely,
PETRUCCELLI ENGINEERING

Rudolph C. Petruccelli, P.E., F.NSPE
Principal

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