Mai Vang

From: Marcia Moermond
Sent: Wednesday, January 8, 2025 5:52 PM
To: Mai Vang; Joanna Zimny
Cc: Leanna Shaff
Subject: FW: 511 Minnehaha Ave E: Structural Engineer's Report

Please attach to Legistar record.

From: Brian Karpen <brian.karpen@ci.stpaul.mn.us>
Sent: Wednesday, January 8, 2025 1:56 PM
To: Marcia Moermond <marcia.moermond@ci.stpaul.mn.us>
Subject: RE: 511 Minnehaha Ave E: Structural Engineer's Report

Marcia:

I was able to review the provided report, the orders issued by the Fire Inspector, as well as the images uploaded to our system by the Fire Inspector. There are two areas of concern:

1) Rear deck/stairs egress path – The Fire Inspector had concerns regarding the stability of this structure based on the appearance of the wood material, as well as concerns with eccentricity of the columns bearing on the foundation piers. The provided report addresses these concerns, in part, with the overall determination that the deck is not suitable in its current state. These concerns can be split into 3 parts:
    a. Lateral Stability – The engineer's report notes concern for the lateral stability of the deck due to lack of knowledge as to how the deck is attached to the building, I would echo this concern.
    b. Column Placement on Foundation Piers – This concern is noted in Fire's orders. The report does address the column placement on the piers, but does not find issue with the eccentricity. Based on the pictures provided and the engineer's assessment, I do not have much concern regarding the post on the pier placement. The pictures indicate that the posts do fully bear on the piers, and there appears to be no cracking or differential settlement that may indicate a problem with eccentric placement of the columns on the piers.
    c. Floor boards and general wood material conditions – The Fire Inspector raised concerns with the condition of the wood material as well as some deteriorated connection material. The pictures do show the wood is old and discolored in places which does raise concerns. The engineer notes some deterioration and notes that damaged material should be replaced but does not provide a complete repair plan for this material and/or members. Further in other areas of the report the engineer references a 40 psf live load requirement. This would be the correct requirement if this deck was not part of a required egress path. If this is a required second egress from the upper apartments the deck and stairs will need to be assessed/repaired/reinforced to accommodate a 100 psf live load.

   The rear deck is in need of repair to ensure it is capable of supporting the Code required loading. As this property is a fourplex it does not fall within the proscriptive requirements of the Minnesota State Residential Code, and therefore falls under the requirements of the general Minnesota Building Code. A complete detailed assessment of the deck structure should be performed by an engineer registered in the State of Minnesota, and a building permit shall be pulled prior to completing those repairs. To obtain a building permit construction documents should be produced providing detailed repair requirements both to provide for the lateral stability of the deck as wall as replace and repair of any rotten or damaged material, connections, and members. Until repairs are completed under permit access to the deck and stairs should not be allowed, and the deck and stairs should not be considered an acceptable egress path.

2) General Masonry Condition – The orders issued by the Fire Inspector contain a few items related to maintenance of the exterior envelope and condition of the masonry walls. The engineer's report addresses these items, but only in a limited way. Noted in the report is cracking and mortar deterioration, which is evident in the pictures. The report does note that this is not currently an overall structural concern. I would agree based on the provided information, however, I still have concerns about the masonry structure, mainly the brick structure of the building. It is unclear if this is a multi-wythe load bearing structure or a brick façade on a wood framed structure. Based on the age of the building I would guess that it is a multi-wythe masonry structure. Pictures show areas of poor flashing and water tightness, at the roof, around newly framed windows, and at intermediate levels in the brick façade. All of these are locations where water can infiltrate and cause further damage to a masonry bearing wall or a wood supporting structure. In some cases it is clear from the pictures there has been water infiltration and potential damage for an extended period of time. Though from the exterior there is no immediate concern for the overall structural stability, I believe further investigation is necessary. There may be additional water damage in the interior of the building or other cracking in finishes that is evidence of water damage throughout the width of the wall structure. It should be determined if the walls are multi-wythe or wood bearing walls, and if there is damage that indicates further structural distress, that is not evident from the exterior.

Please let me know If you have questions or need further clarification.

Brian Karpen, PE(MN)
Structural Engineer
Department of Safety & Inspections

City of St. Paul

From: Marcia Moermond <marcia.moermond@ci.stpaul.mn.us>
Sent: Tuesday, January 7, 2025 5:03 PM
To: Brian Karpen <brian.karpen@ci.stpaul.mn.us>
Subject: 511 Minnehaha Ave E: Structural Engineer's Report

Hi Brian,

It's been a little while since I've bugged you. I have an appeal on this property. There's a couple of things going on – but in particular the brick and tuckpoint, and the decking on the back of the building. We asked him to get a structural engineering report if he wanted extended deadline. We were specifically looking for an assessment of stability/soundness if these corrections were to wait and how long of an extension makes sense safety-wise. The fire c of o orders were written on 10/14/24, The matter has been going on for a while. Could you take a look and let me know what you think? The language used was very "qualified" and I don't think I was getting a decent answer in the report. What are your thoughts?

Thanks! -Marcia

Marcia Moermond
Sr. Policy Analyst & Legislative Hearing Officer
Pronouns: she/her
Saint Paul City Council
310 City Hall, 15 W. Kellogg Blvd.
Saint Paul, MN 55102
P 651-266-8570
marcia.moermond@stpaul.gov
www.StPaul.gov