

# SELECT STRUCTURAL

February 28, 2023

RE: Brick Wall Repair – Addendum  
324 N. Main St.  
Davenport, IA

To Whom It May Concern:

A follow-up site visit was performed at the property above on February 23<sup>rd</sup>. At the meeting, the mason pointed out that the area immediately to the north of the work area has a large and potentially dangerous void beneath the façade wythe of clay brick.

The repairs recommended in the report issued February 8<sup>th</sup> are being performed by Bi-State Masonry; they appear to be going according to plan. One deviation from the plan is that two layers/wythes of CMU are being installed to replace the clay brick wall segments rather than a single layer with an outer, façade layer of clay brick. This modification is acceptable and will add structural strength to the replaced areas. The original repair area is roughly twelve feet wide, and will abut to an existing wythe of CMU (which is likely a previous repair). What has recently come to the attention of the team is that this area has a large void space, roughly 12”-14” wide, between the clay brick façade and CMU layer. This void appears to have been caused by the collapse of some mass of clay brick between the façade and CMU. This collapsed mass is now settled and piling up against the inside face of the façade, pushing it outward. This will soon cause a large panel of façade to also collapse, creating a safety problem and potentially destabilizing the upper areas of brick façade. This condition was not visible in the early inspection(s) and did not become apparent until repairs were under way and an opening was made by a smaller area of failing façade.

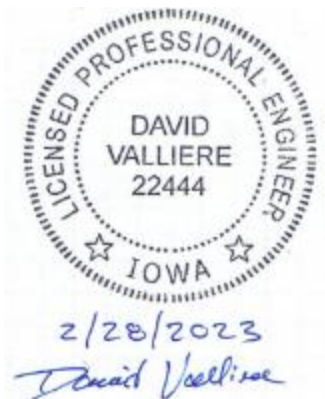
The Mason and Engineer agree that the most direct solution is to remove the brick façade in this area in a safe, controlled manner, and then to construct a second, outer layer of CMU from the ground level up to the top of the void (roughly 15 to 18 feet). This would allow the safe removal of unstable clay brick and add solid structure to the compromised wall. The repairs to the original twelve-foot-wide area of wall would proceed as it is now.

The opinions and recommendations in this report are based on field measurements and observable conditions. It is not an assessment of the non-structural elements of the local building code or an in-depth analysis of every member of the full structure. Should conditions change or new information become available, the Engineer reserves the right to amend his recommendations and this report. Select Structural Engineering assumes no liability on construction or demolition means and methods. Notify the Engineer immediately should field conditions vary from expectations, as a new course of action may be needed. If you have any questions about the findings or recommendations, please contact me.

Thank you,



David Valliere, PE



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Photo 1 – Void between CMU and Clay Brick Façade

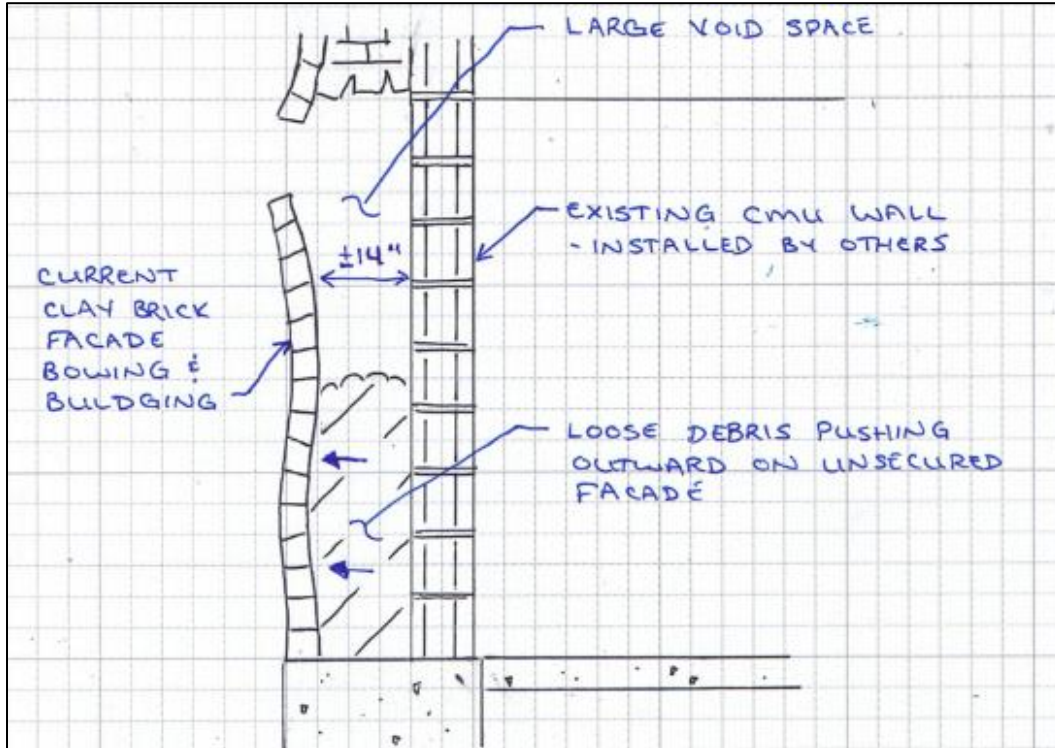


Figure 1 – Current Condition

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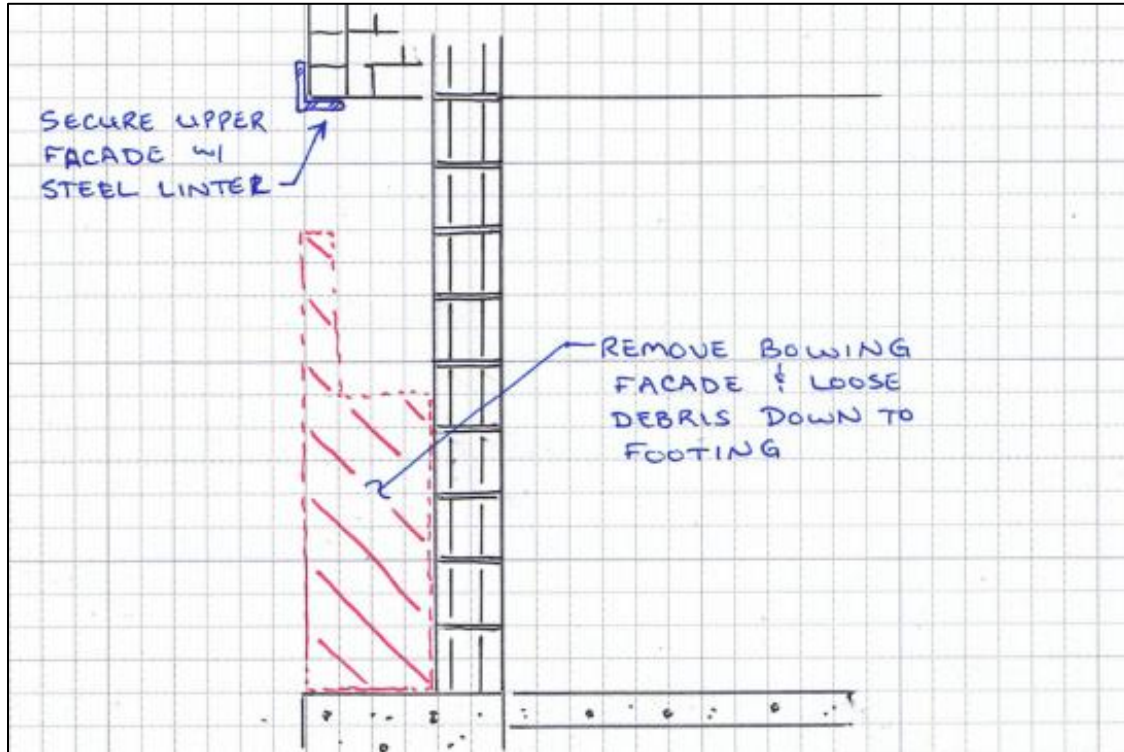


Figure 2 – Brick Demo

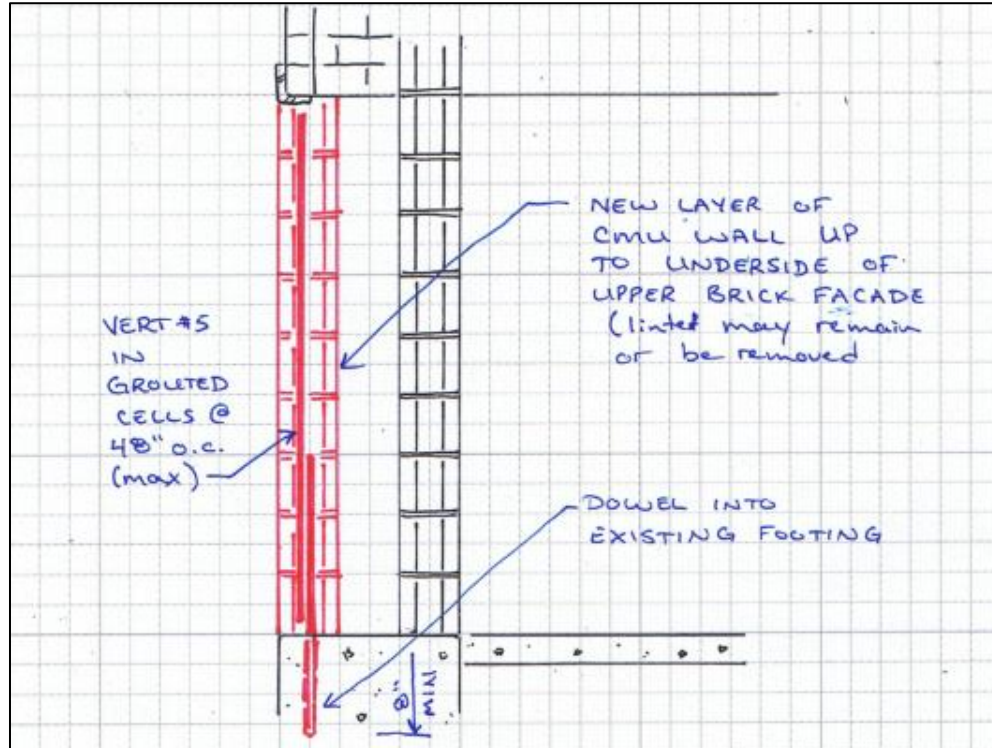


Figure 3 – New CMU Wall