

**Building Assessment Report**

Feb 28, 2026

Mr. Cody Hawkins, City Manager  
City of Mascoutah, IL

Ref: Leu Civic Center  
213 N. Market St  
Mascoutah, IL

Dear Mr. Hawkins:

Per your request, our office performed an inspection at the above referenced project to inspect the building structural conditions of the referenced building. Kreher Engineering, Inc. did not perform any type of destructive testing or dismantling of the building components or materials during our field observation. This report does not imply any warranty of the structure, but only addresses the conditions of the portion that was readily accessible and observable at the time of observation.

**Inspection Report:****Building Description:**

2- story with garden level, multi-wythe brick masonry building. Structure was built in the 1930's. Original design usage: High School education.

This structure is located within an area of known abandon coal mines per the Illinois State Geological Survey for St. Clair County, Illinois. 3) known shaft mines are located within Mascoutah, #340, #3485, and #3486.

## Exterior

**Observation / Inspection:** (all references left/right are noted as looking at the front of the building) Front wall - East

The exterior elevations are exhibiting excessive amount of water damage. At all elevations, there is noticeable staining that existing under the window openings. There is indication that water is entering the inside of the masonry wall at the window sill. Mortar joints are loose or even missing in these areas. There are additional areas below windows that exhibit (picture #6) loose or missing mortar joints. **See Pictures #1 thru #9.**

Steel lintels above window openings are beginning to expand due to the expansion of steel during oxidation (rusting). Evidence that the bearing ends have pushed the bricks upward resulting opening of the brick joints. **See Pictures #10 thru #16**

Parapet wall on the West wall (Gymnasium ) are starting to lean inward. **See Pictures #17 thru #18**

Along the North elevation the masonry pilasters are exhibiting vertical cracks. These pilasters align with the clear span beam that support the floor above, and the bowstring trusses that support the roof. 3 of the 4 pilasters on the North side exhibit these vertical cracks. It could not be determined if the pilaster encases a steel column or if the pilaster is completely made of masonry brick. (inner gym wythe is a glazed tile) **See Pictures #19 thru #23**

The original structure had an addition built to the south of the front elevation. This addition was removed due to causes of mine subsidence. A new masonry mutli-wythe masonry was added to close off the south wall. This new wall is showing signs of separation between the new and existing structure. **See Pictures #24 thru #24.**

Additional information noted on attached pictures

## Interior

**Observation / Inspection:** (all references left/right are noted as looking at the front of the building) Front wall - East

Evidence of water entering the building. There are multiple areas where it was noticed that water is entering the building from the exterior of the building envelope. Interior wall paint is blistering from water trapped between the brick and paint. Water stains are noticed where the exterior walls are unpainted. Noticeable break down of the interior mortar joints. **See Pictures #26 thru #37.**

Multiple areas were noted having stress cracks in the interior masonry and light framed plastered walls. Diagonal fractures are prevalent throughout the classroom areas on all three levels of the building. A vertical crack (picture #43) was observed in the auditorium north wall which aligns with the exterior pilaster which also exhibits vertical cracks on the exterior. **See Pictures #38 thru #43.**

Floor framing along the exterior walls are showing signs of separation. Slight foot pressure on the floor responds with movement. Most of the floor separations are near the radiators. Additionally, the radiators are leaning towards the exterior wall. **See Pictures #44 thru #49**

Additional information noted on attached pictures

**Conclusion:**

Moisture is evident of the problems this structure is experiencing. Water is entering through deteriorating wall caps, window sills, and years of mortar joint breakdowns. This damage increases exponentially with the age of the building. Current evidence has affected the structural capacity of the building.

With older structure such as this have been affected by the conditioning of the building. Structures of this era did not consider the effects of cooling the building during summer periods. Wall flashing and water barriers to compensate the effects of water were not used. With the interior now being cooled by air conditioning, water condensation builds up on the wall surfaces, then reverses in the winter. Constant water pushing and pulling water through the wall.

Areas of brick damaged was found on all elevations, exterior and interior, of the structure. Mortar loss in the brick joints, fractures in the bricks over the window, fractures in the pilaster on the North elevation, and masonry breakdown on the interior brick faces.

Exterior wall steel lintels were used to support the masonry wall over window openings. There is evidence that the steel lintels are oxidizing, and due to this rusting, the steel is expanding pushing up the brick upward causing brick joint to open. This oxidation also breaks down the load carrying capacity of the steel lintel.

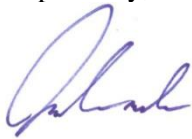
The North face consist of pilasters which supports a clear-span bowstring truss and a clear span floor beam above the gymnasium space. These clear span supports creates a high concentration force. 3) of the 4) pilasters are failing through evidence of the vertical fractures. It was unattainable to identify if there was a steel column encapsulated inside the pilaster and the columns is expanding from oxidation or if moisture from freeze/thaw has created the cracks. Either condition, these pilasters shall be considered incapable to support the roof truss and floor beams when fully loaded.

The last concern due to the affects of water is the connection of the floor joist(floor diaphragm) to the exterior wall. Several locations there is evidence of the wall separating from the floor diaphragm. Moisture in the masonry wall is breaking down the wood joist that bear in the in the masonry wall. The interaction between the joist and the wall is very crucial in the stability of the wall. When the joist ends no longer maintains the capability to tie the wall to the floor diaphragm, the walls become unstable under any type of winds loads or seismic loads. This same concept applies to the roof framing (roof diaphragm).

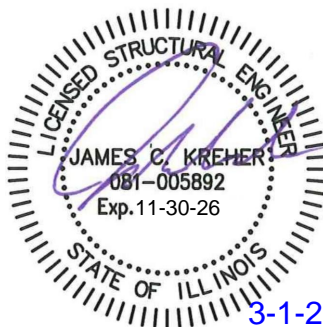
Outside of the water damage, there were areas in the front classroom section, at all 3) levels, were observations of differential settlement if the interior walls. With the structure being located above an abandoned mine, these settlement cracks are minor. It cannot be determined at the time of the inspection if the settlement is the result of differential settlement due to the heavier exterior walls and the lighter loaded interior wall or mine subsidence.

Kreher Engineering, Inc. reserved the right to modify/amend our report in the event new information becomes available to us, or if conditions change after our observation(s) are completed.

Respectfully,



James C. Kreher, S.E., P.E.  
Kreher Engineering, Inc.  
Attachment: Pictures



3-1-26

## Exterior

**Picture#1**

East elevation



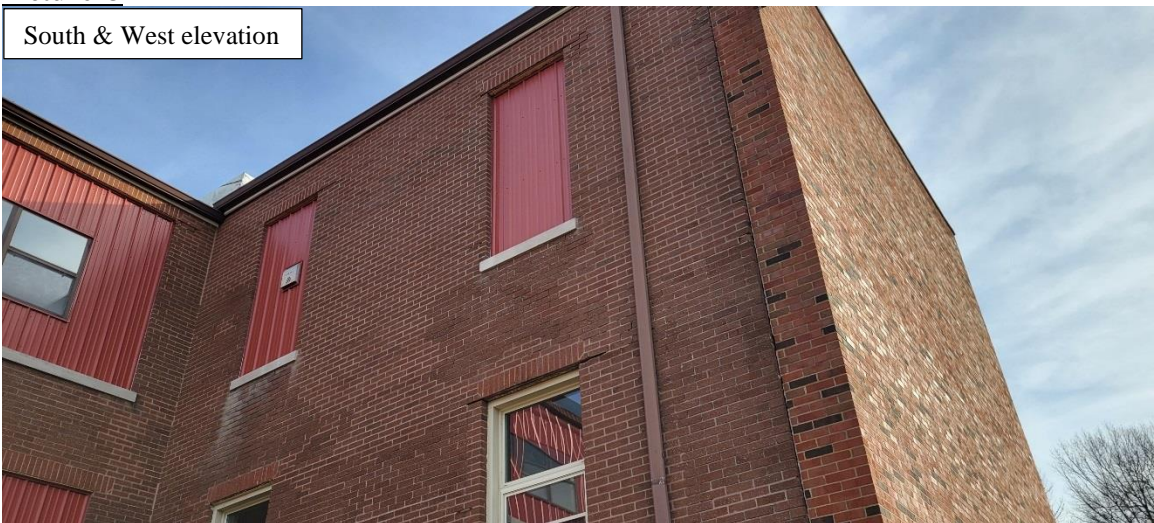
**Picture#2**

East elevation



**Picture#3**

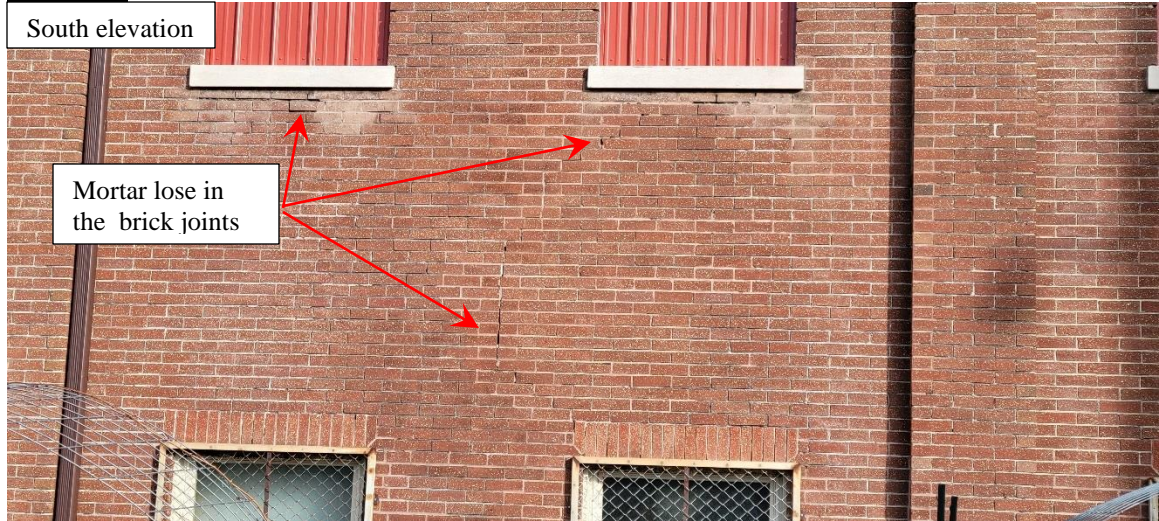
South & West elevation



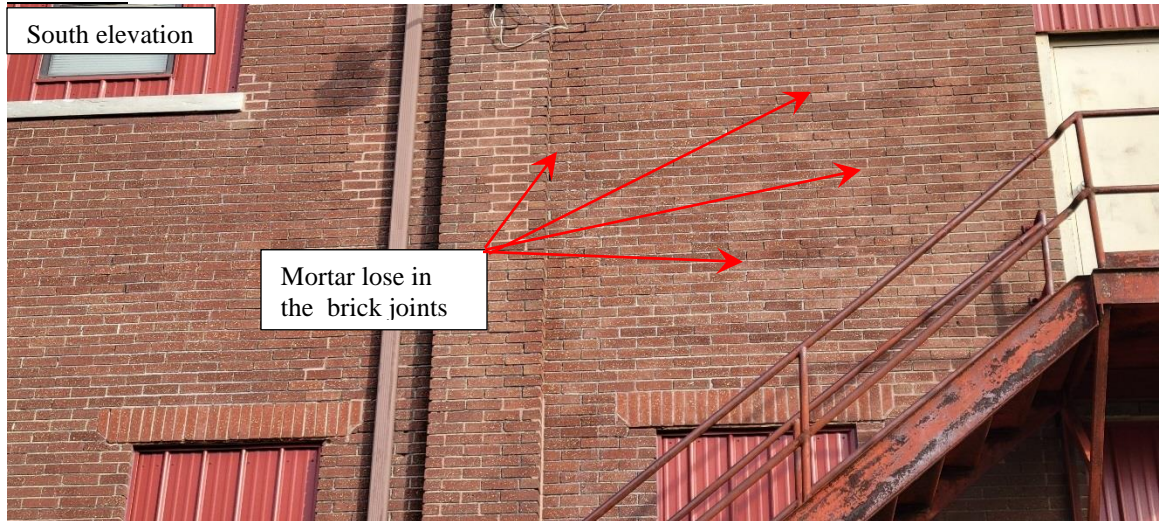
**Picture#4**



**Picture#5**



**Picture#6**



**Picture#7**

North elevation



**Picture#8**

North elevation

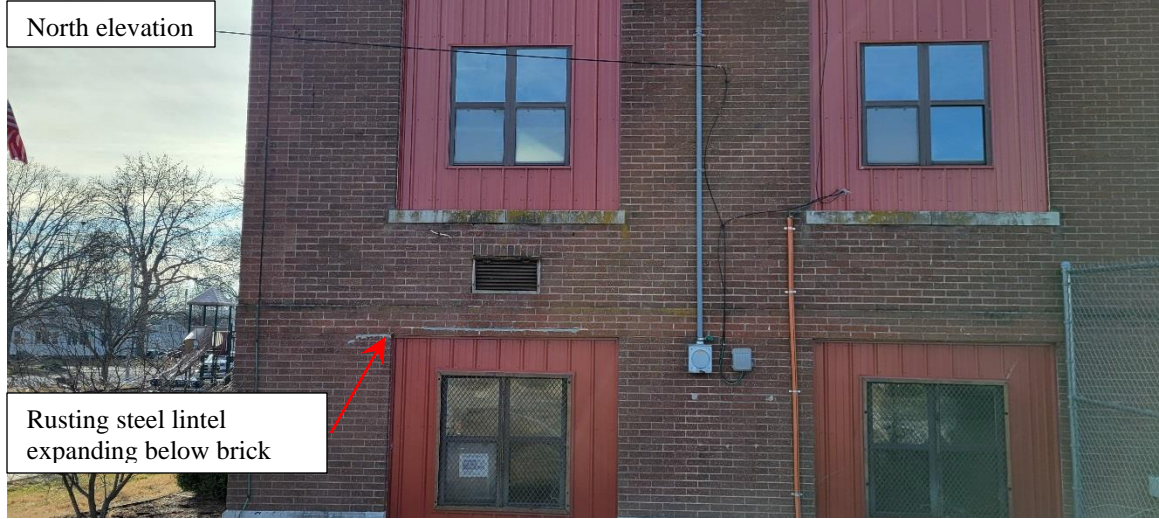


**Picture#9**

North elevation



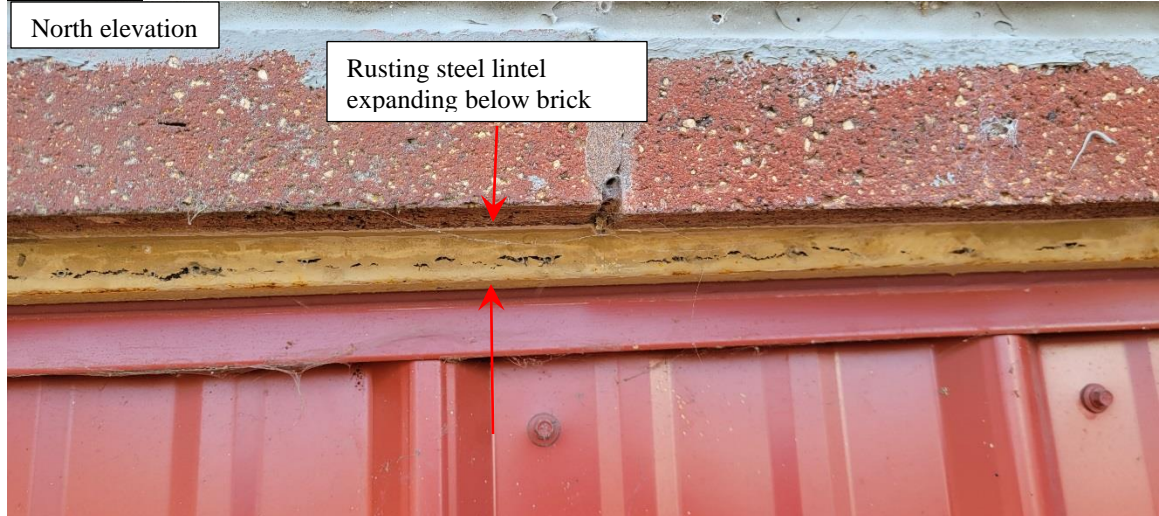
**Picture#10**



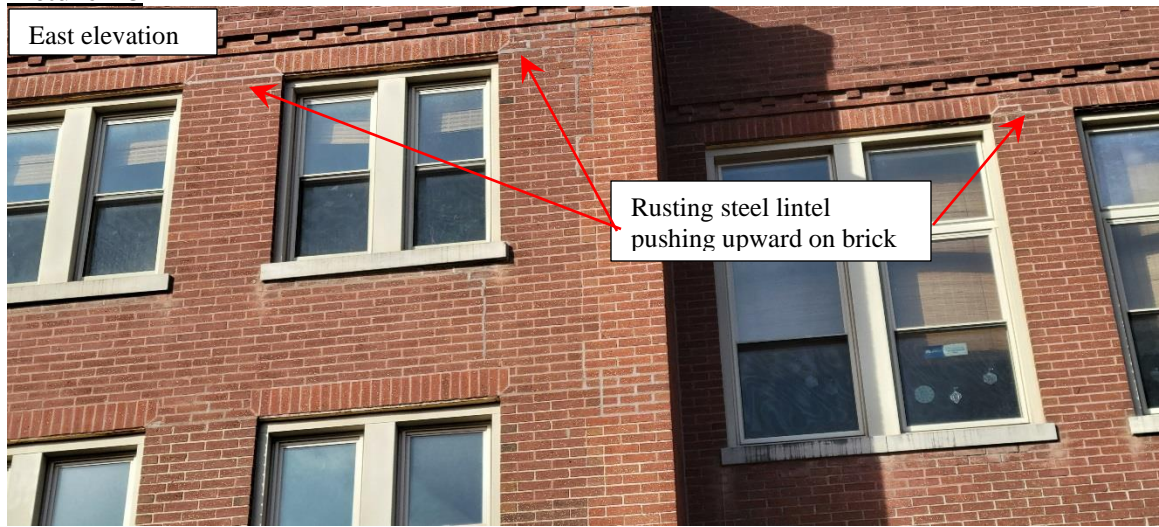
**Picture#11**



**Picture#12**



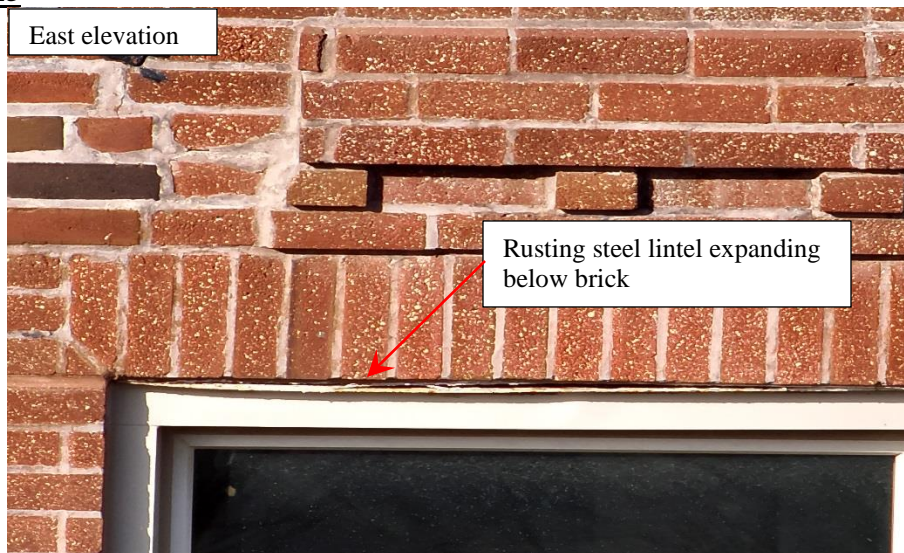
**Picture#13**



**Picture#14**



**Picture#15**



**Picture#16**



**Picture#17**



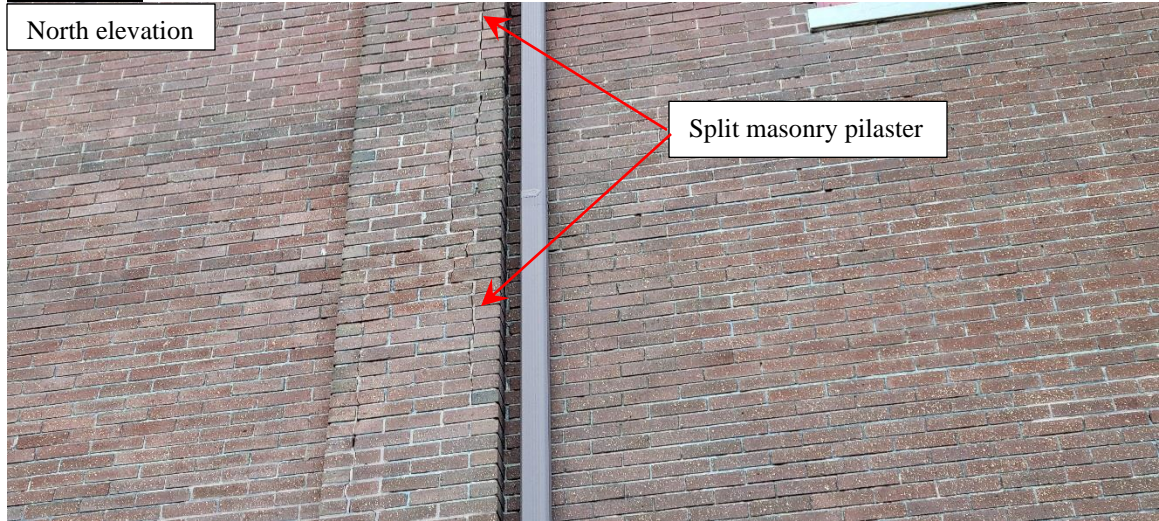
**Picture#18**



**Picture#19**



**Picture#20**



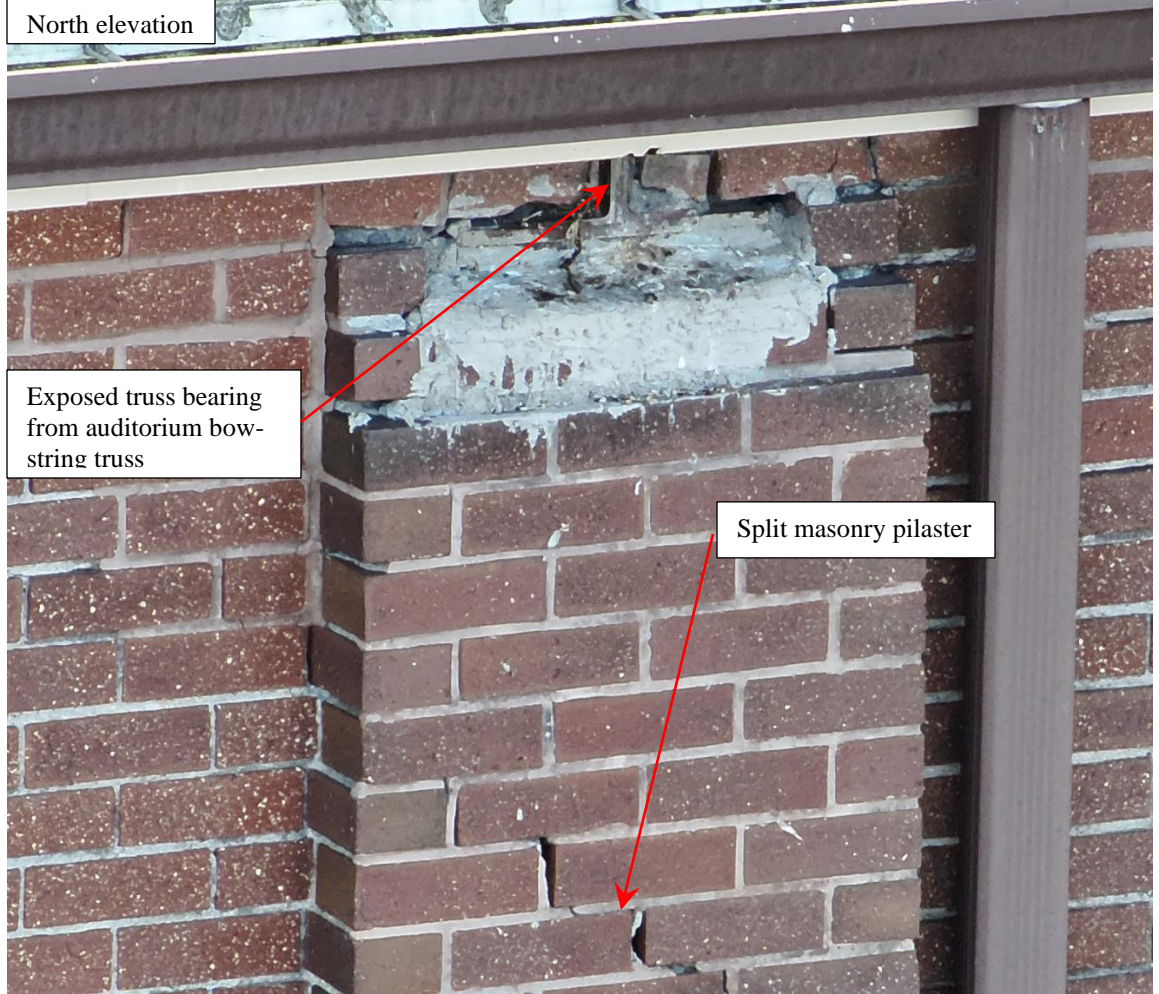
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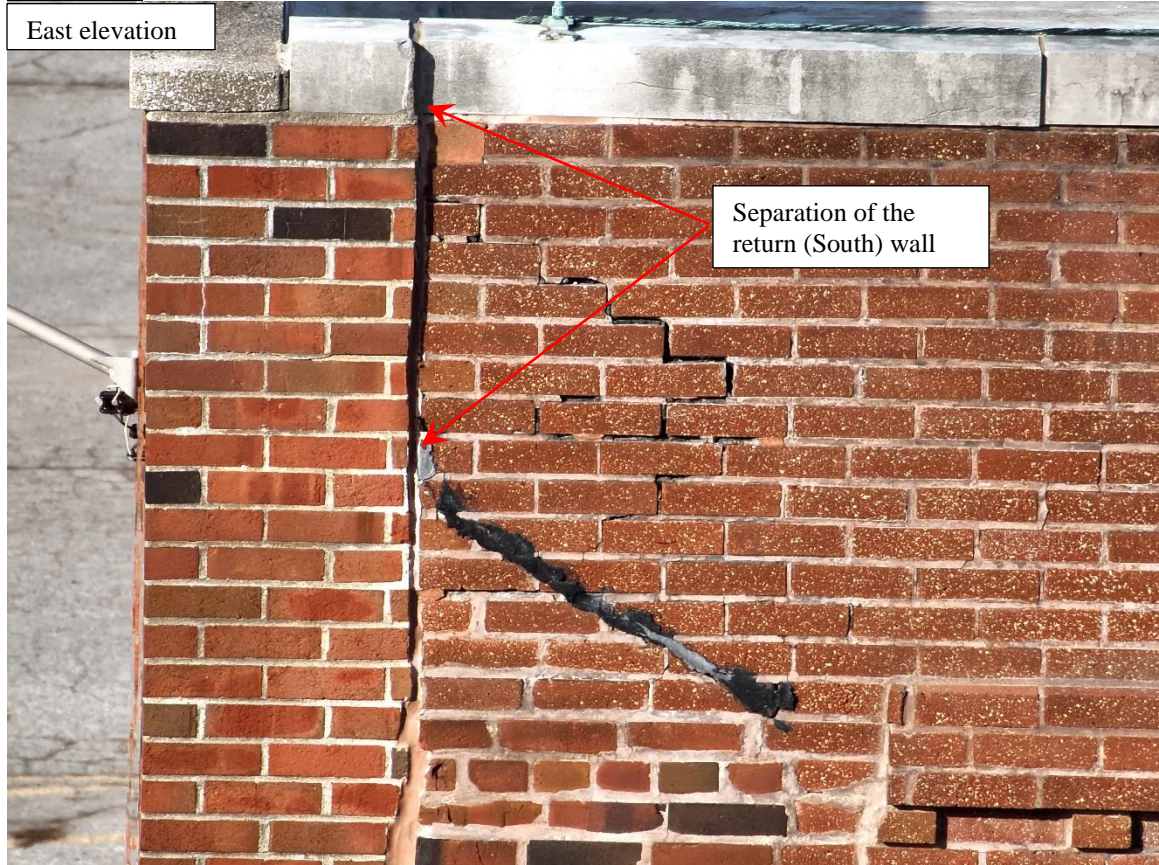
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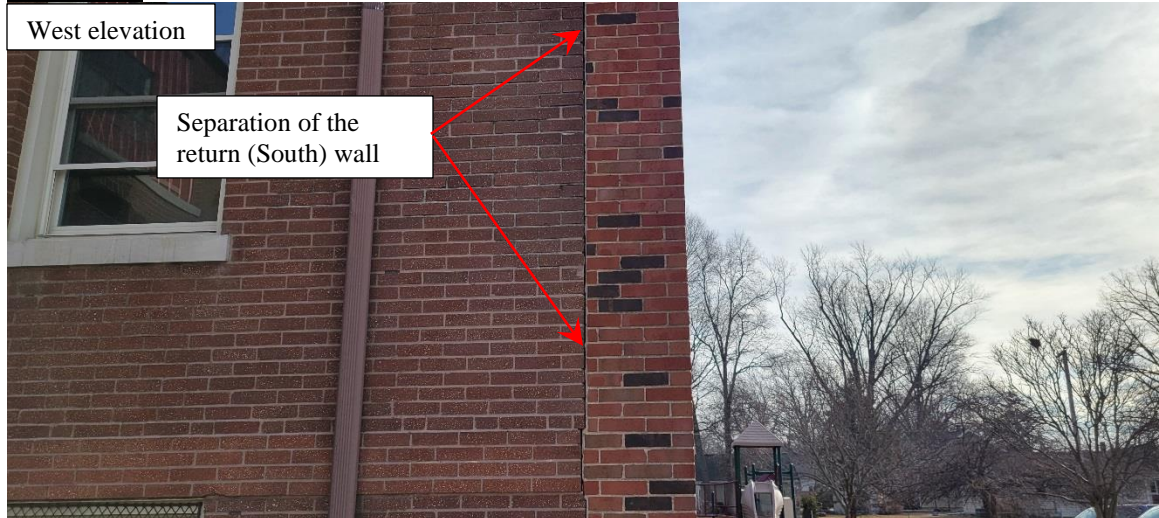
**Picture#23**



**Picture#24**



**Picture#25**

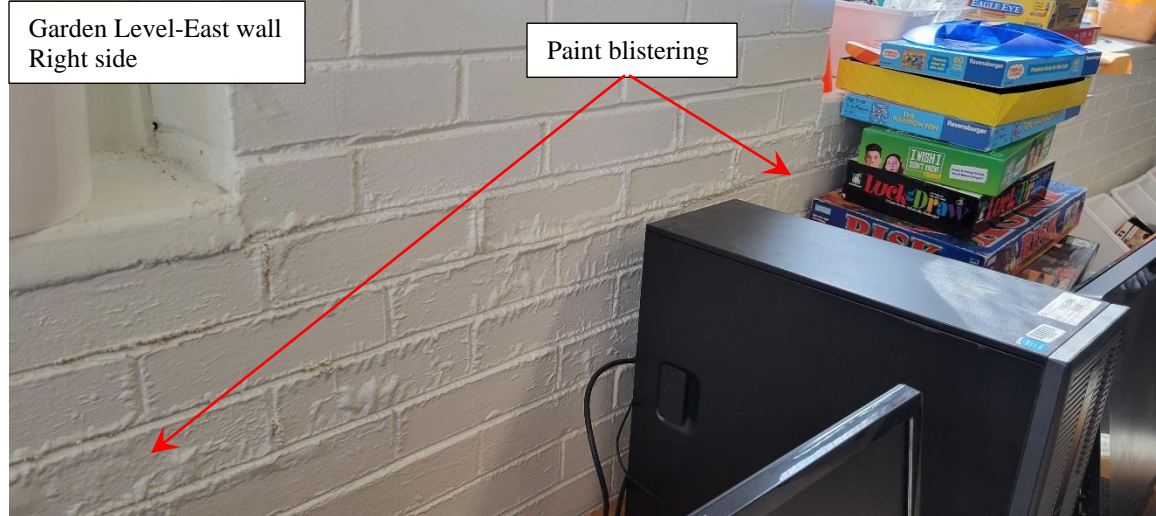


## Interior

**Picture #26**



**Picture #27**



**Picture #28**



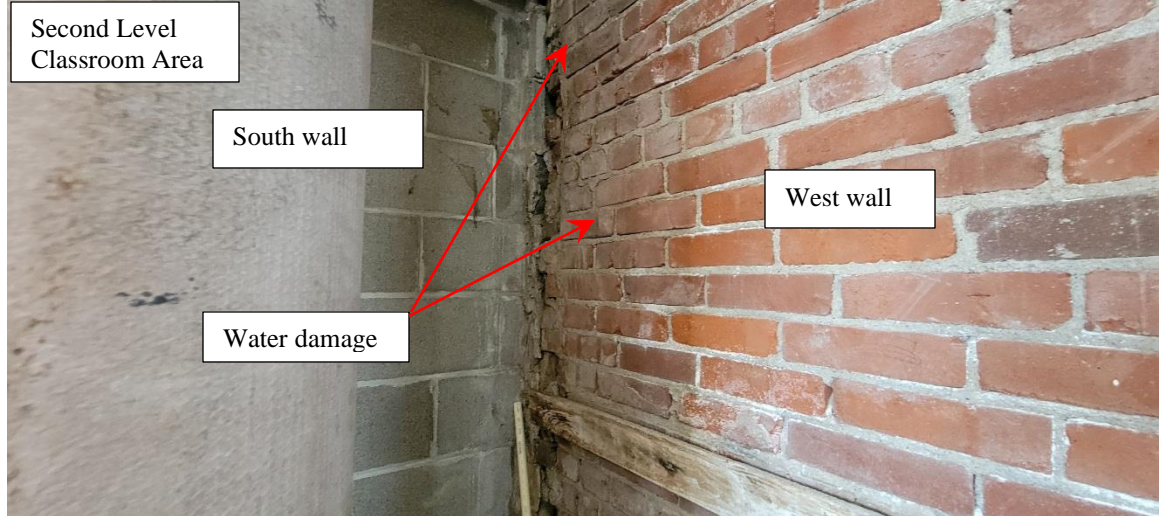
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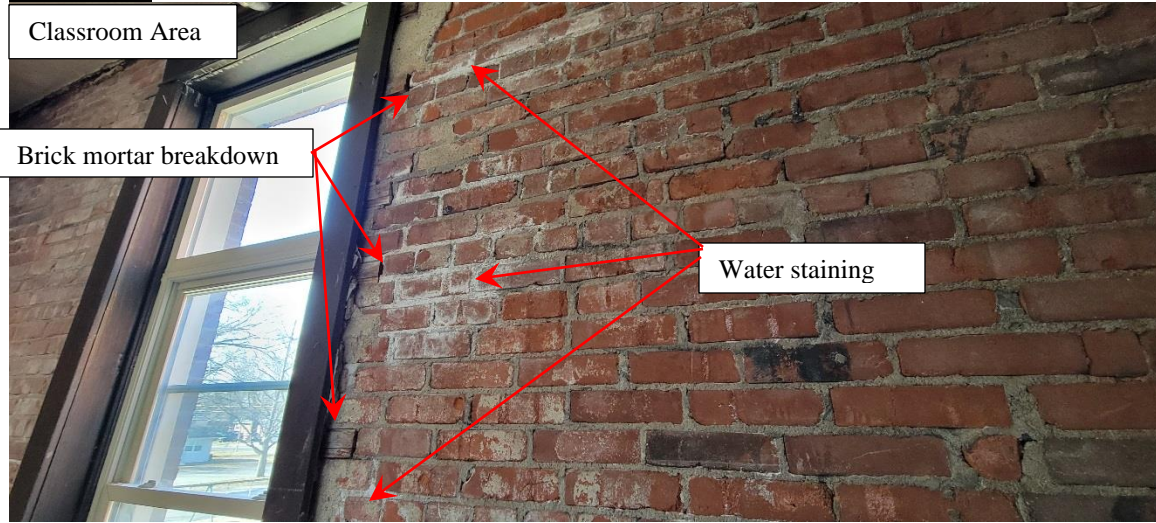
**Picture #30**



**Picture #31**



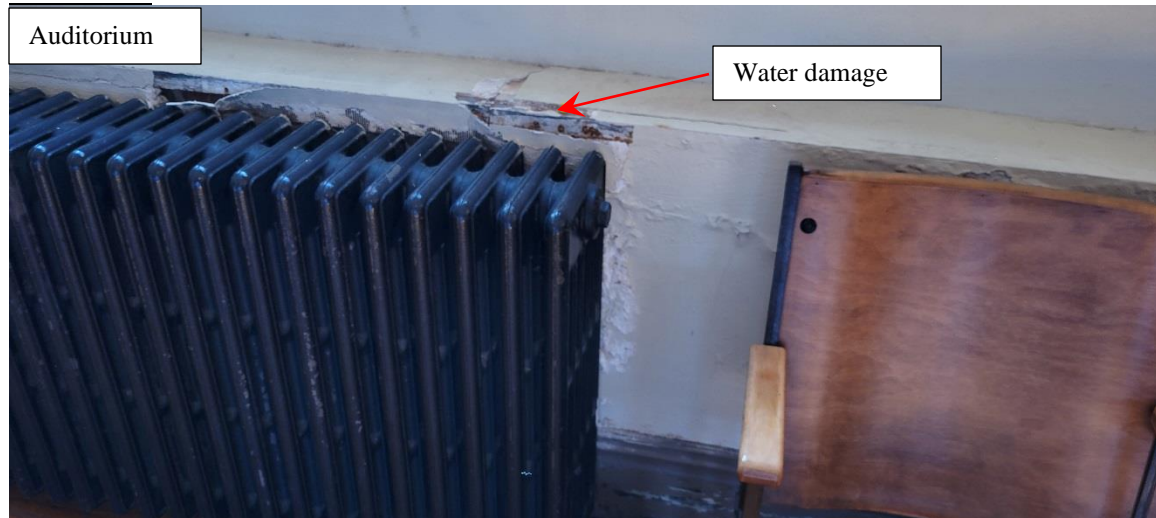
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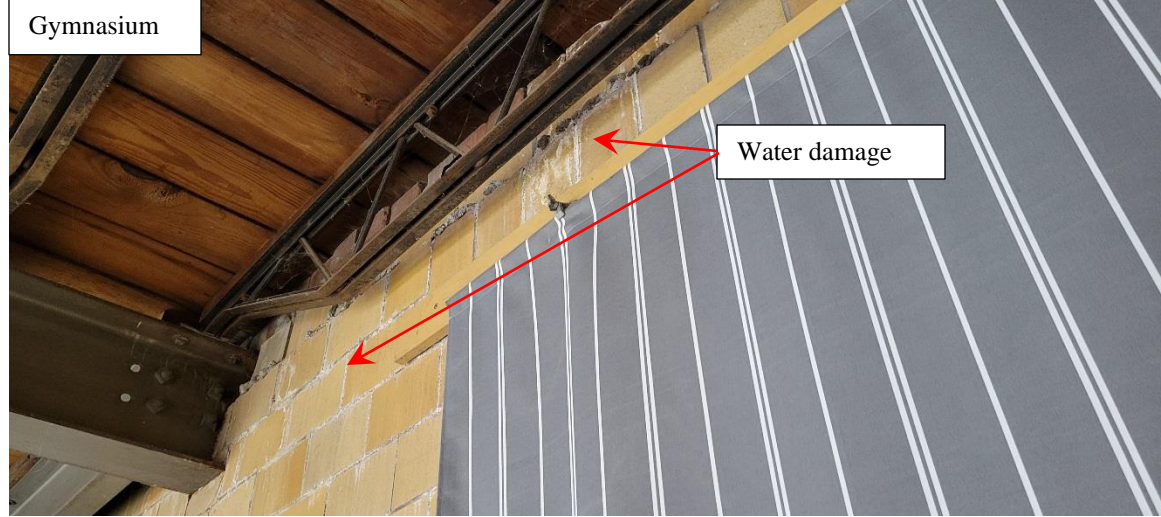
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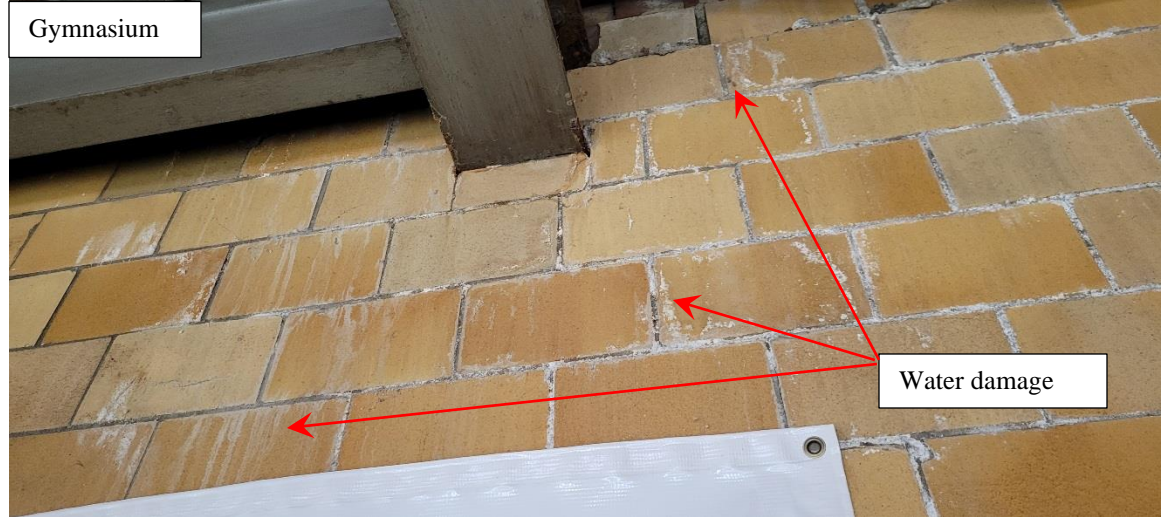
**Picture #34**



**Picture #35**



**Picture #36**

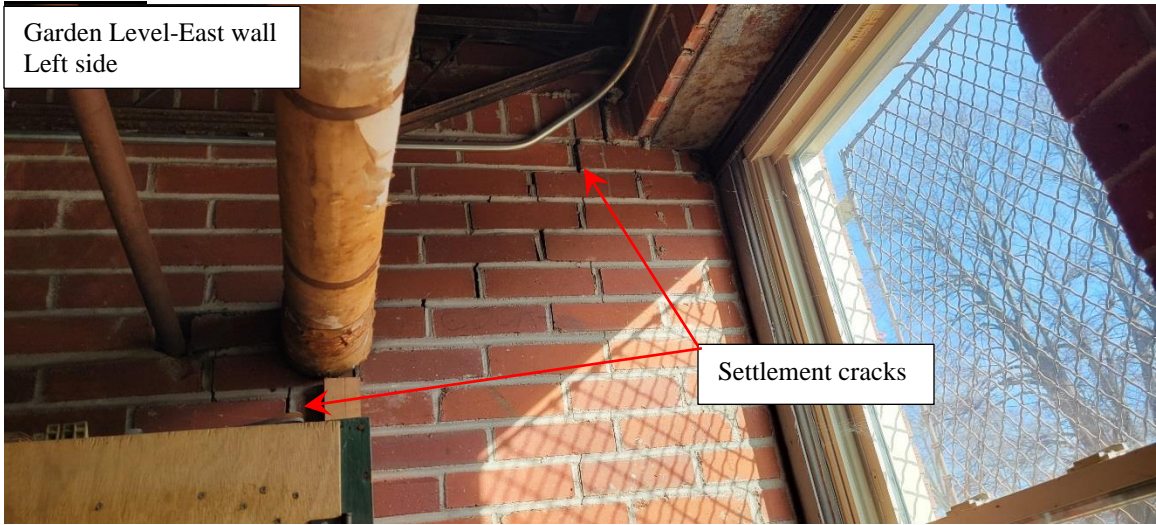


**Picture #37**



**Picture #38**

Garden Level-East wall  
Left side



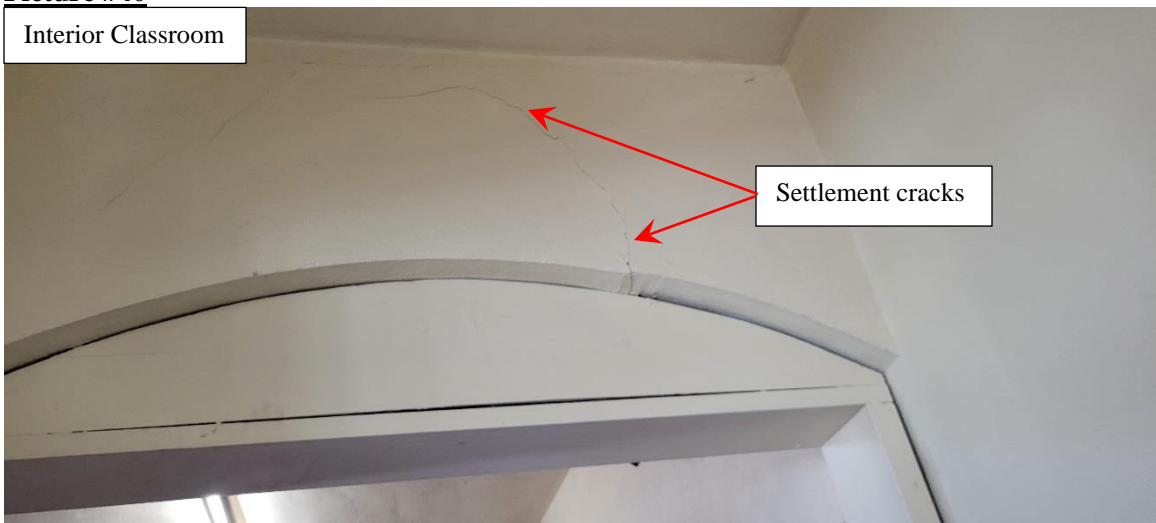
**Picture #39**

Interior Classroom

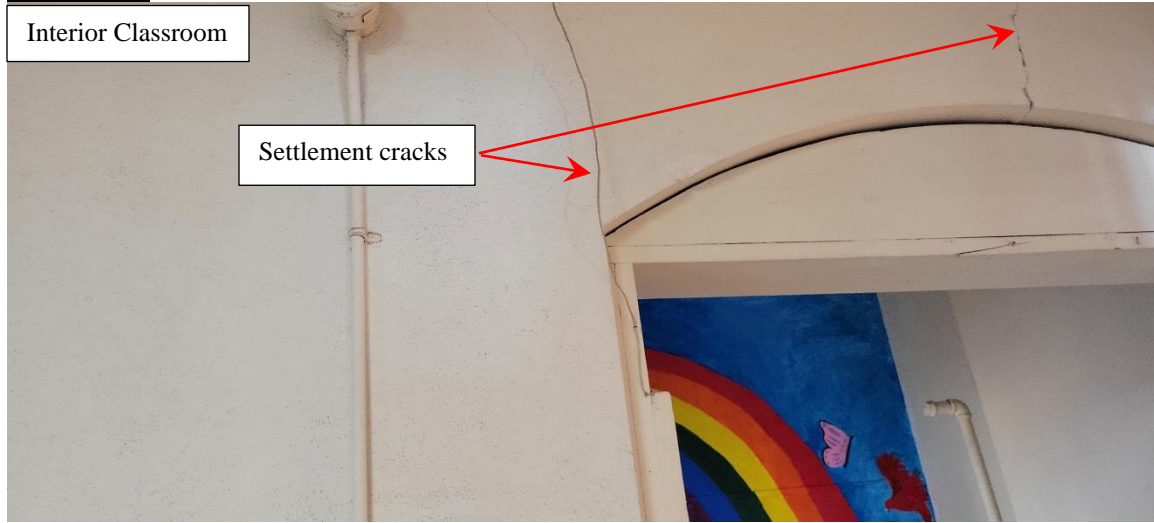


**Picture #40**

Interior Classroom



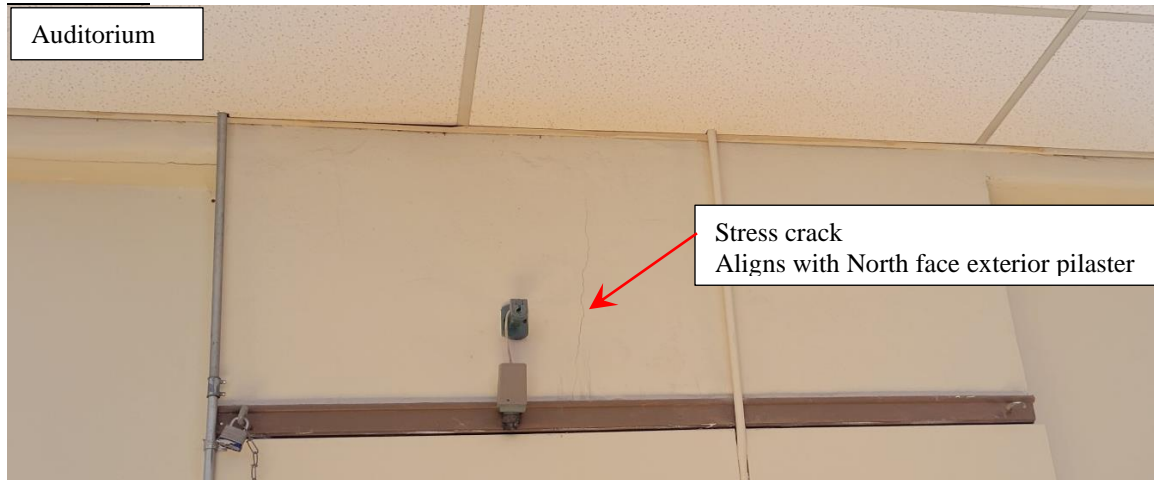
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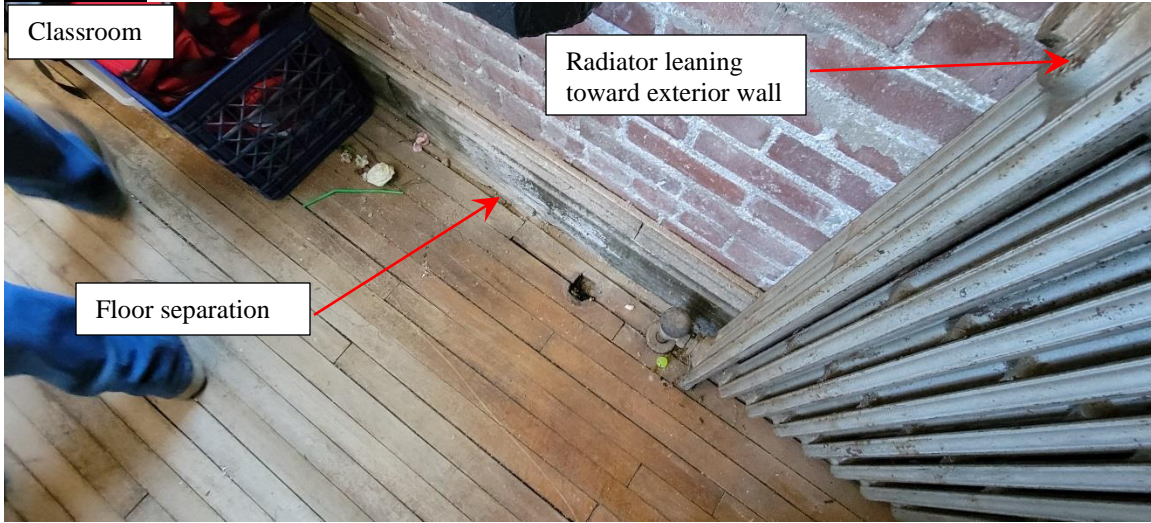
**Picture #42**



**Picture #43**



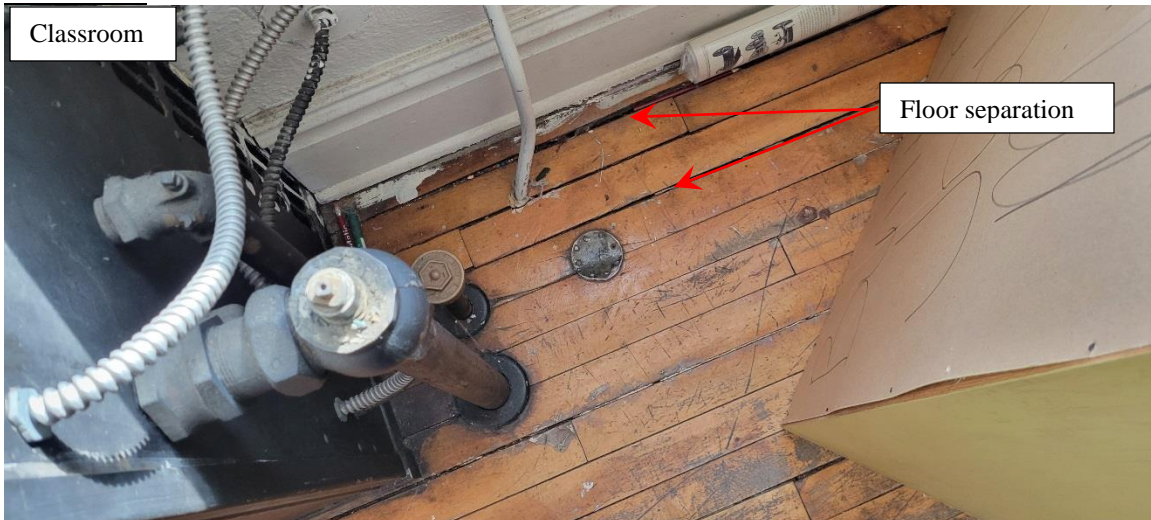
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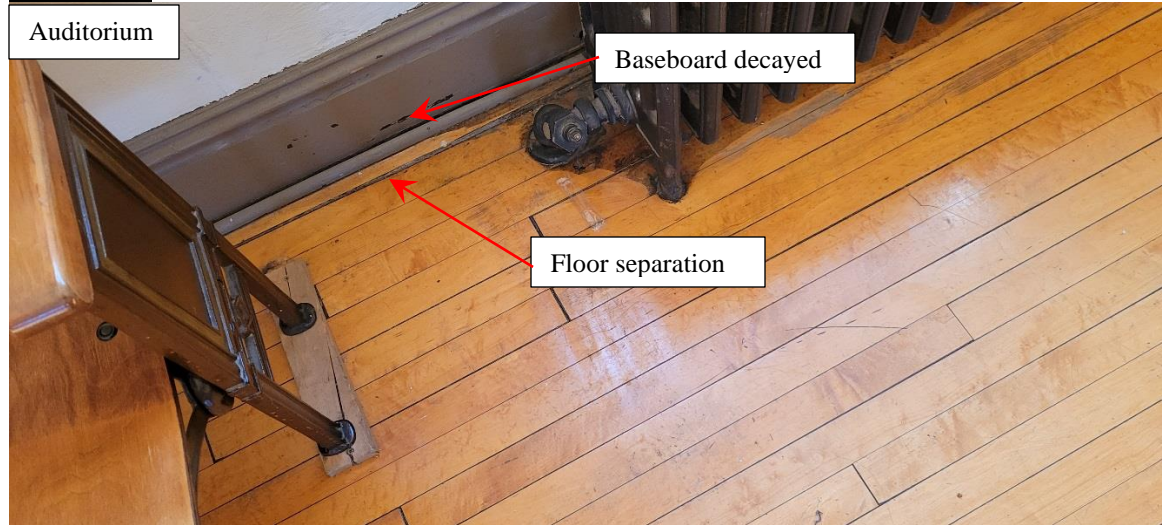
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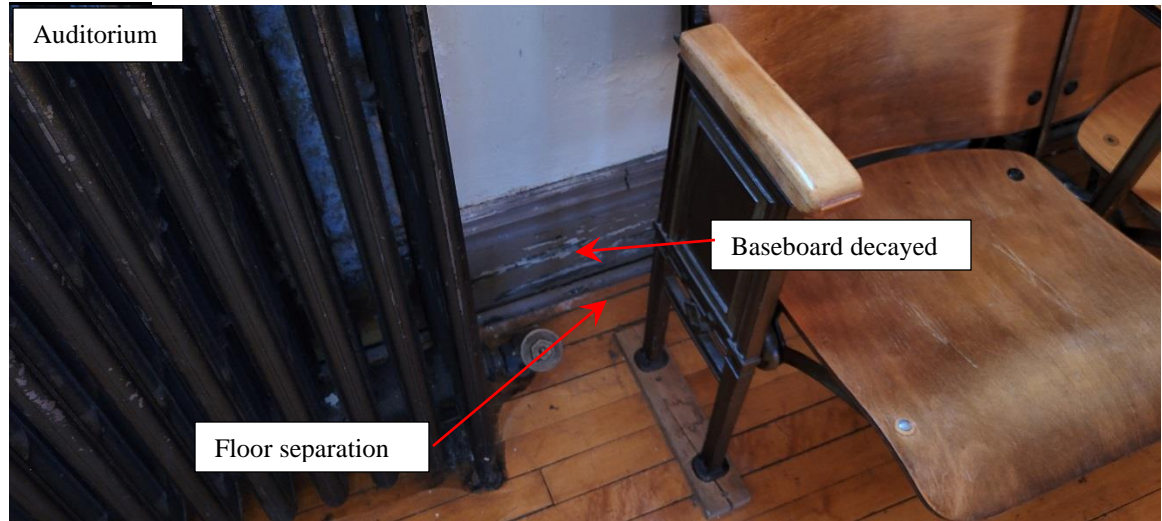
**Picture #46**



**Picture #47**



**Picture #48**



**Picture #49**

