MASONRY RESTORATION ASSESSMENT
TODD HALL SCHOOL

3925 W Lunt Ave, Lincolnwood, IL 60712

August 8th, 2022

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INTRODUCTION

This document assesses the condition and capacity of the existing Todd Hall School exterior masonry, evaluating building exterior envelope, and miscellaneous exterior architectural elements. The objective of the report is to provide the District with an understanding of the building's current state and its needs. The assessment includes short commentary on the existing building components and provides recommended repairs and upgrades for the district to consider.

The assessment is based on site observations conducted in July 2022.

OVERVIEW AND BUILDING HISTORY

Todd Hall School facility is a single story above grade building. The original building was constructed in 1955 with classroom, library and gymnasium additions in 1993 that connected to the existing building and created the courtyard as it stands today.

Building Timeline

1955 – Original School (Clarence L. Dahlquist & Associates Architects)
1993 –Additions and Alternations (Green Associates.)

Building Envelope

Exterior Walls

The School is clad with a 4" brick veneer around the entire building. Behind the brick veneer of the 1993 additions is an air space and 1 – 1/2" of rigid insulation and then a course of CMU masonry behind it. The 1955 building has 4" brick veneer over CMU masonry but is grouted solid with no air-space with ½" insulation on the interior side of the wall. These walls are missing elements that are found in current masonry construction. These include base flashing, weep vents at the base and top of the wall, and an air gap in between the exterior veneer and insulation, as well as periodic control joints. The missing elements are to assist in moving moisture out of the wall system from either absorption or leaks.

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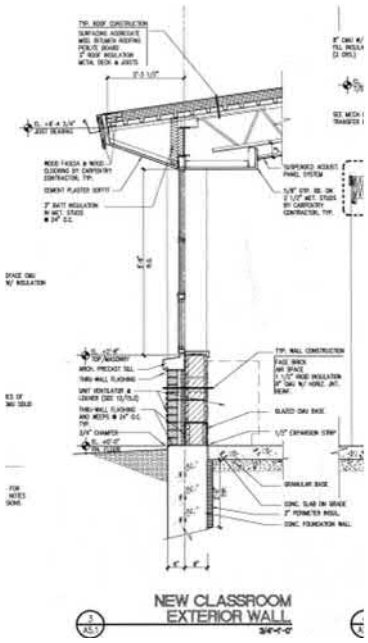
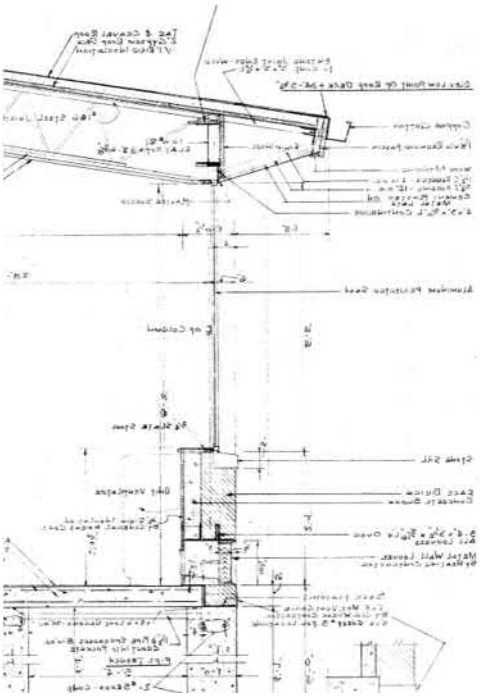


(Typical 1993 wall construction)



(Typical 1955 wall construction)

Withstanding the deficiencies in the 1955 walls, the existing brick is in generally good repair. There is miscellaneous cracking in the mortar and broken bricks and areas in need of brick replacement and mortar repair (tuckpointing) and various areas brick and cast stone sills in need of cleaning and some joint repair and or sealing at the old and new additions of the building, which will be illustrated below.

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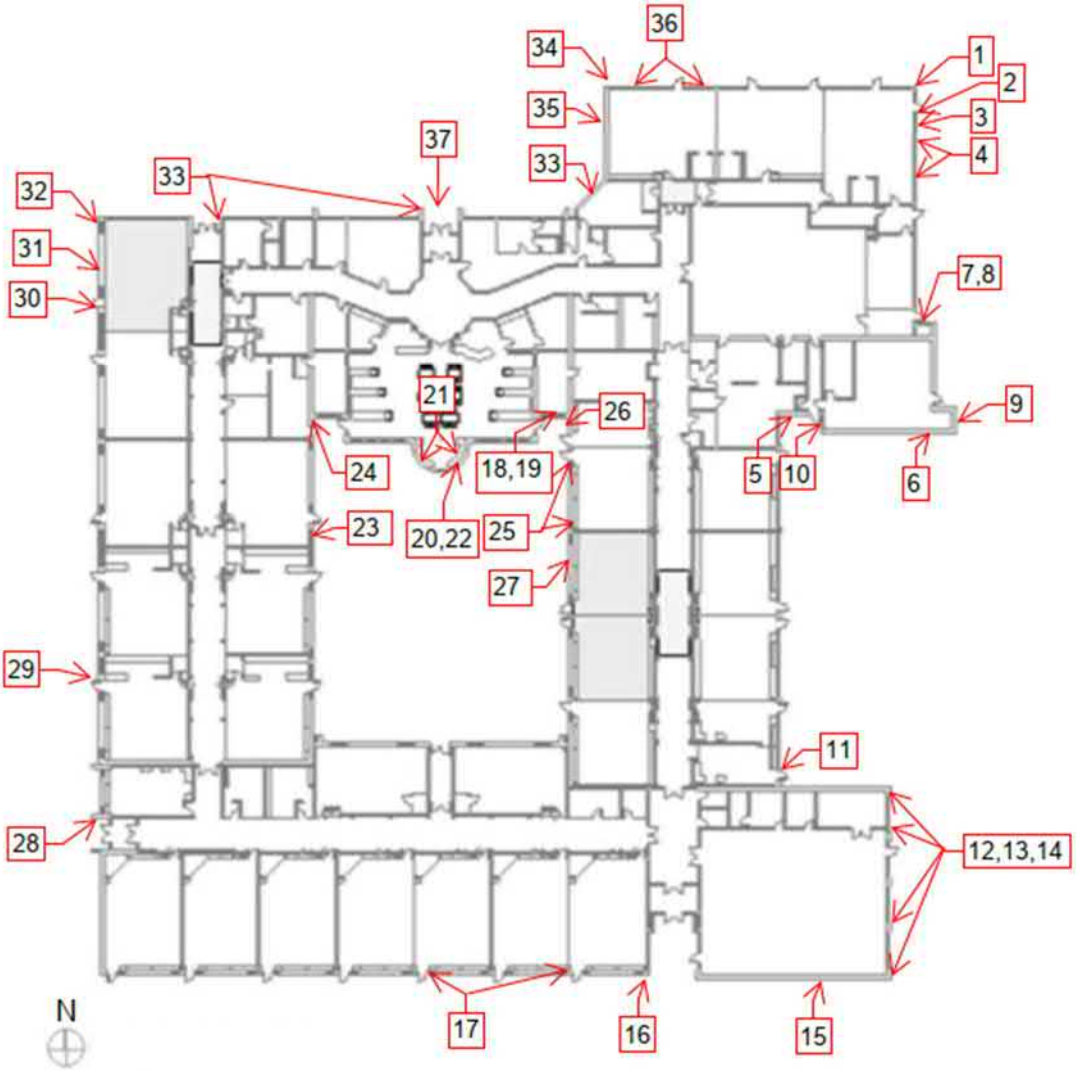
PHOTO LOCATION KEY PLAN:



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East Elevation

Figure 1:Area of damaged foundation and cracked mortar joints @ Southwest corner in need of repair and tuckpointing.

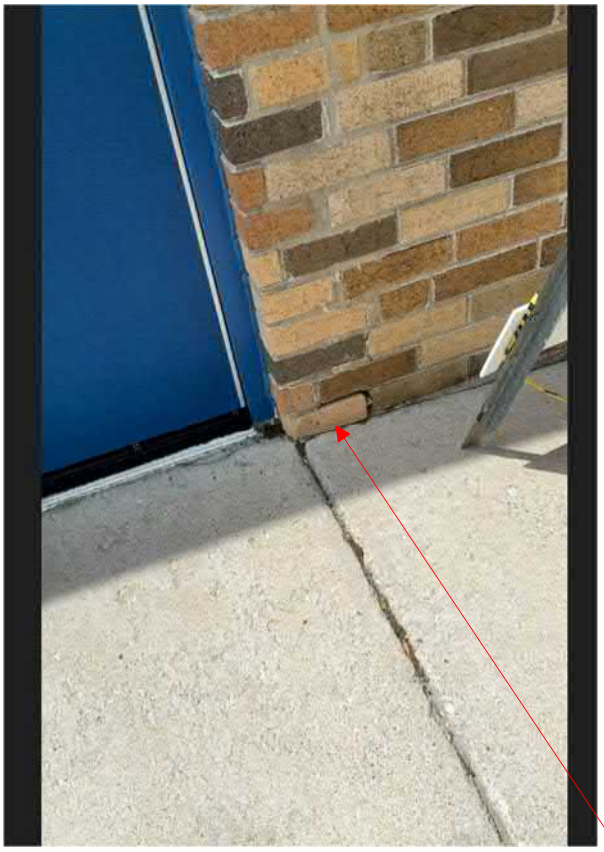

Figure 2: Mortar damage @ Door #28, general area in need of repair and tuckpointing.

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Figure 3:Existing Cast Stone Sills, in need of cleaning, sealing, grinding out of joints and re-sealed with elastomeric sealant, per current construction methods.

Figure 4:General Areas of cracked mortar in need of repair and tuckpointing of broken and open joints.

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Figure 5:Previously tuckpointed area that could be improved, re-pointed to match exsitng joints.

Figure 6: General areas in need of tuckpointing and cleaning.

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Figure 7: General area in need of tuckpointing and a few broken / cracked bricks..

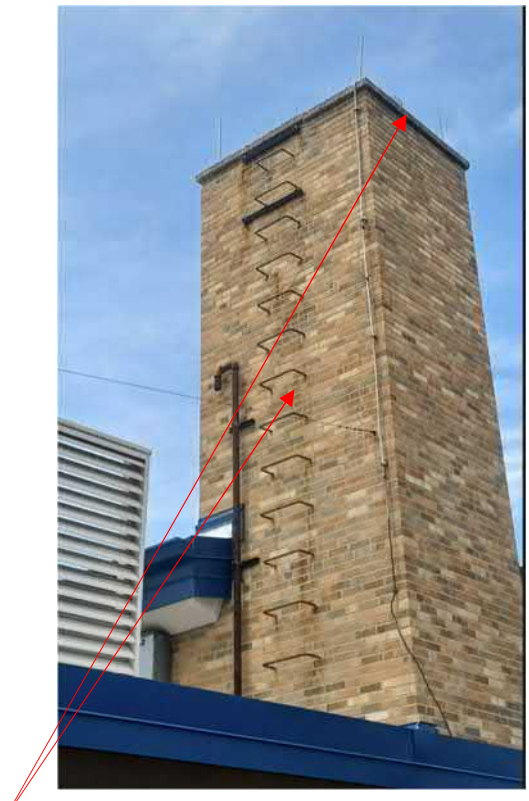

Figure 8:Crumbling cast stone chimney cap in need of replacement. Rust stains on brick in need of cleaning/power-washing.

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Figure 9: Remove / drill out fasteners and seal. (Option: Replace bricks with new.)

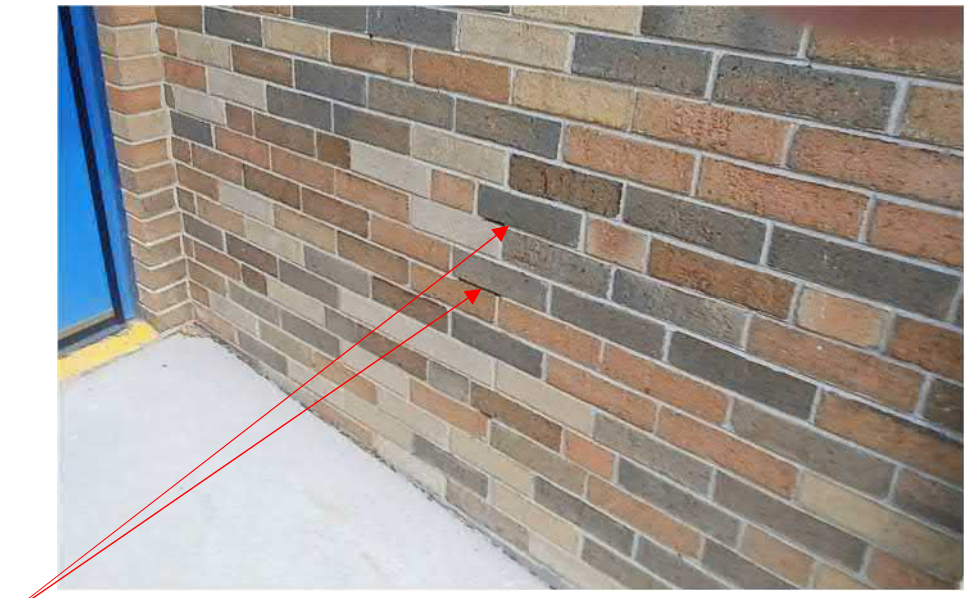

Figure 10: Cracked and open joints by door 24 in need of repair and tuckpointing..

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Figure 11: Stoop coming away from bldg. should have compressible filler installed and then sealed. Brackets could be removed, brick pier in need of repair and tuckpointing

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Figure 12:Vertical control/expansion joints at 1993 construction gymnasium, to be removed and re-sealed with new sealant, outside and inside. Cast stone sills are in need of repair and cleaning. Joints in need of being ground out re-pointed and re-seal

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Figure 13:Vertical control/expansion joints at 1993 construction gymnasium, to be removed and re-sealed with new sealant, outside and inside. Cast stone sills are in need of repair and cleaning. Joints in need of being ground out re-pointed and re-sealed.

Figure 14:General Areas of cracked mortar in need of repair. Tuckpoint and seal open joints. Clean Sills.

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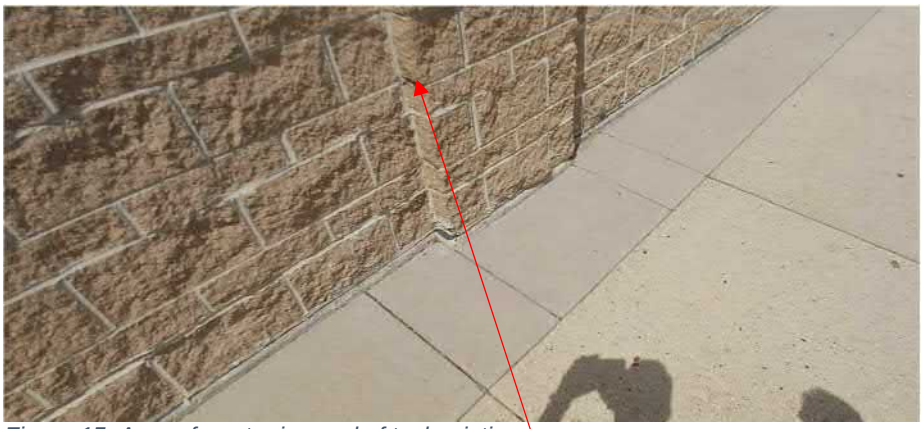

Figure 15: Area of mortar in need of tuckpointing.

South Elevation

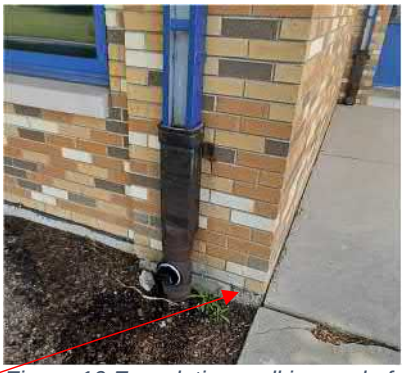

Figure 16:Foundation wall in need of repair.

Figure 17: Tops of brick piers into the soffit in need of sealing/re-sealing. typical at several locations.

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Courtyard.

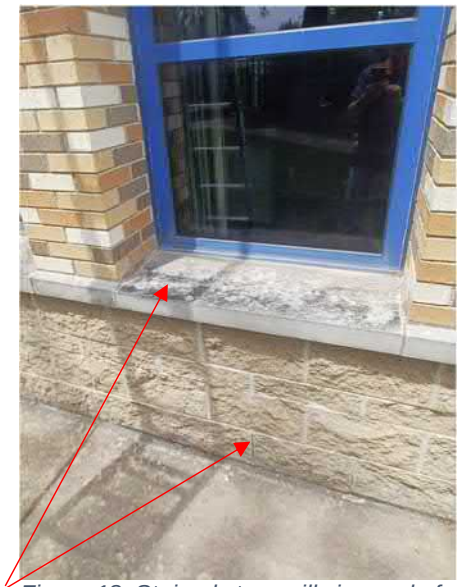

Figure 18: Stained stone sills in need of power-washing and grinding out of joints and re-sealing. Areas of split face CMU in need of repair and tuckpointing.

Figure 19: Stained stone sills. Stained stone sills in need of power-washing and grinding out of joints and re-sealing. Areas of split face CMU in need of repair and tuckpointing..

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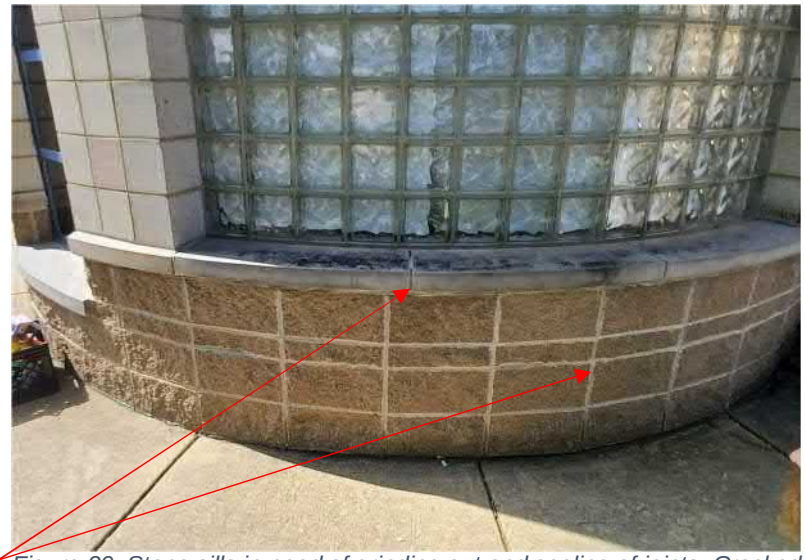

Figure 20: Stone sills in need of grinding out and sealing of joints. Cracked mortar joints in split face CMU in need of tuckpointing.

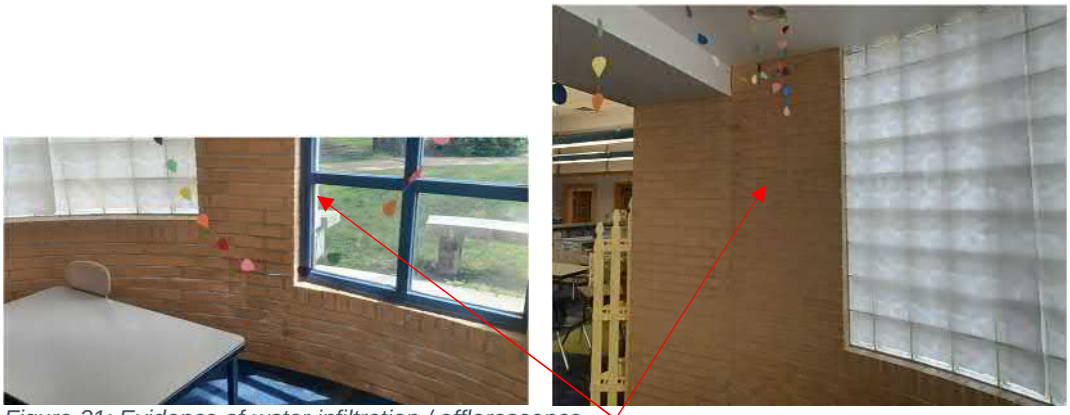

Figure 21: Evidence of water infiltration / efflorescence.

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Figure 22: 'Rotunda' area Stone sills in need of grinding out and sealing of joints. Cracked mortar joints in split face and smooth face CMU in need of tuckpointing.

Figure 23:Areas requiring brick replacement, tuckpointing and cleaning.

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Figure 24: Broken brick in need of repair.

Figure 25: Brick pier in need of cleaning and tuckpointing.

Figure 26: Areas requiring brick replacement, tuckpointing and cleaning. Existing, drying and cracking sealant at sills in need of re-sealing with new elastomeric sealant.

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Figure 27: Bottom 2 or 3 courses of brick in need of tuck pointing. Typical at several areas on the east elevation (west side) of the courtyard.

West Elevation

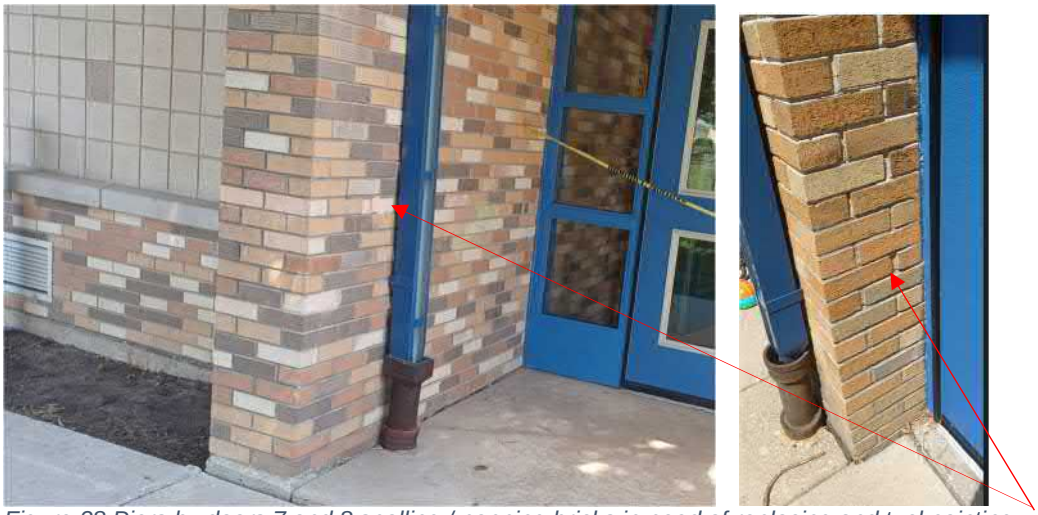

Figure 28:Piers by doors 7 and 8 spalling / popping bricks in need of replacing and tuckpointing.

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Figure 29: Area of mortar in need of tuckpointing.

Figure 30:Figure 29: Area of brick pier in need of tuckpointing and cleaning.

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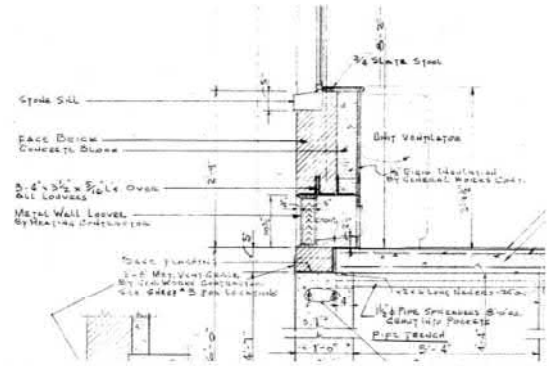

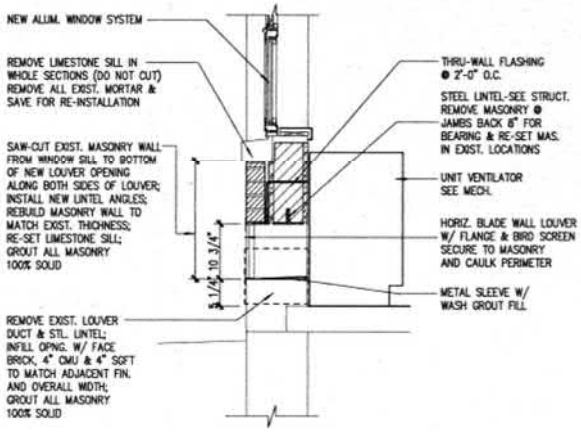

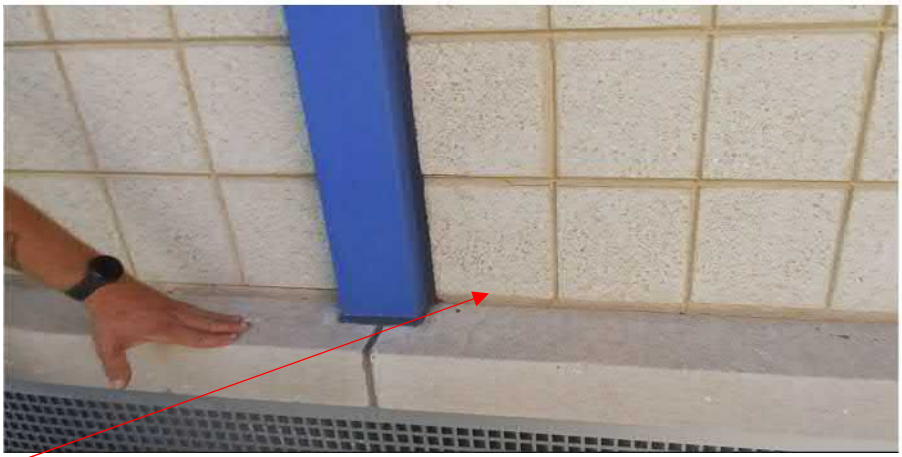

Figure 31:The cast stone sills appear to be 'drooping' at the center of the larger unit ventilator grilles, which is cracking the mortar between the wall and Smooth face CMU window infill. The 1955 and 1993 details show steel lintels for the smaller grilles, but none were found for the larger grilles. Further investigation is required.

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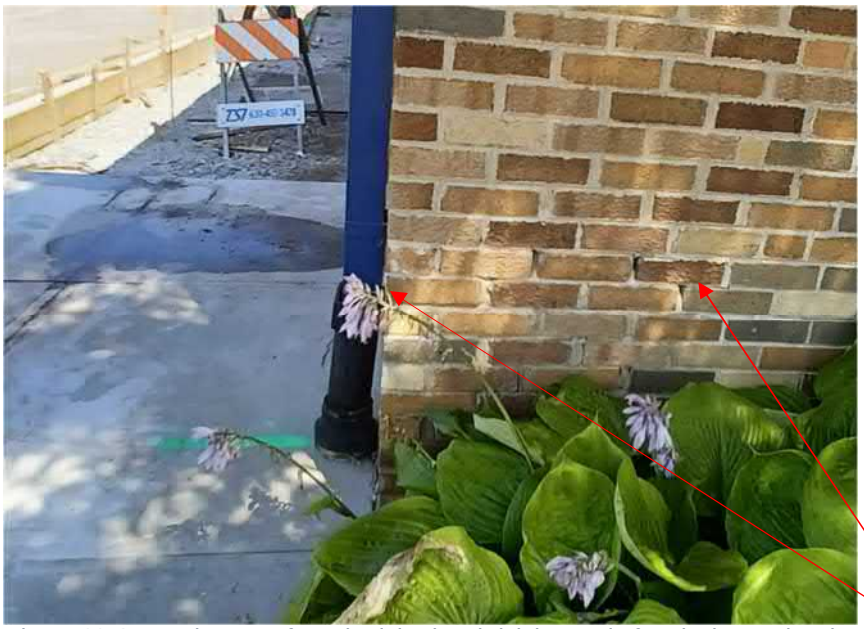

Figure 32:General areas of cracked, broken brick in need of replacing and tuckpointing.

North Elevation:

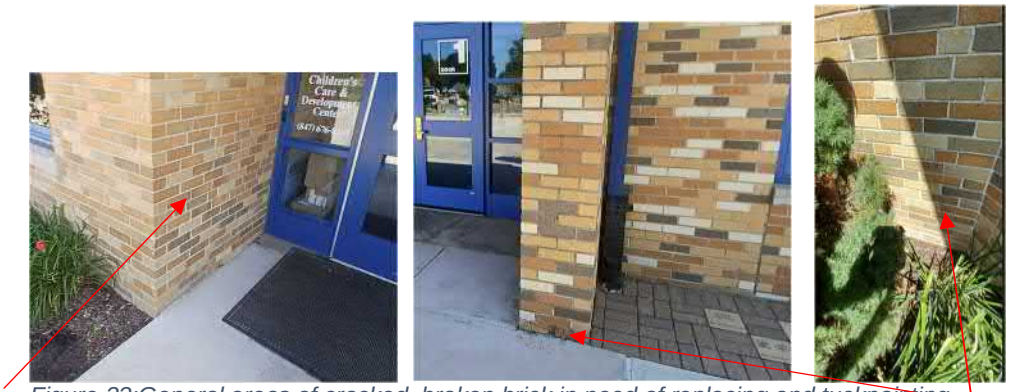

Figure 33:General areas of cracked, broken brick in need of replacing and tuckpointing.

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Figure 34: Several bottom courses of brick in need of tuckpointing

Figure 35: Bottom 2 or 3 courses of brick in need of tuckpointing.

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Figure 36: Bottom 2 or 3 courses of brick in need of tuckpointing. Typical this area of North elevation.

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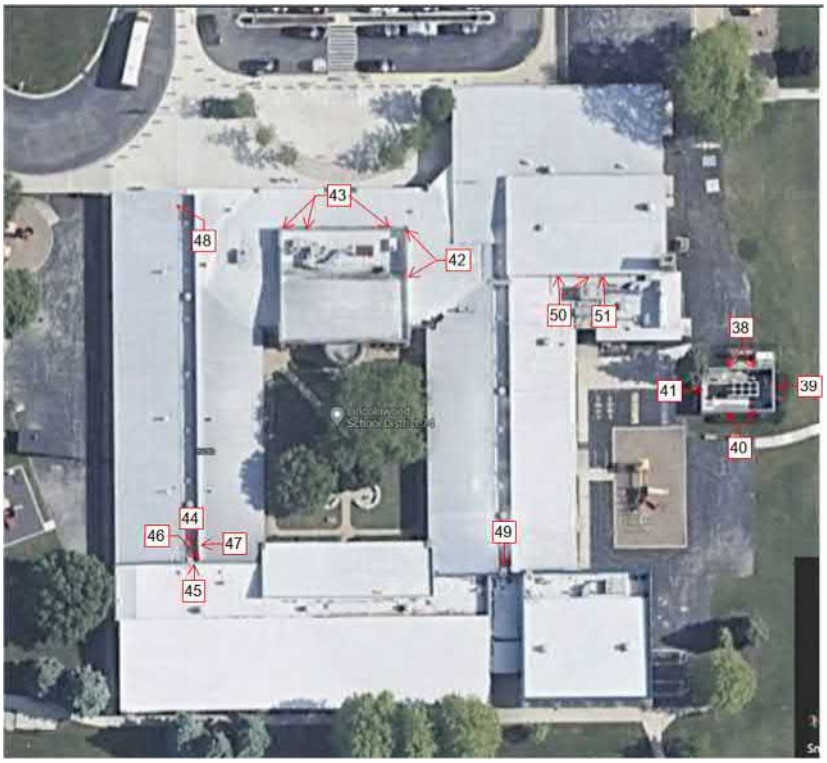
Figure 37:New bricks needed to replace missing bricks above door #2.

Condenser Screen and Above Roof Photo Key Plan:



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Condenser Screen:

Figure 38: Spalling / popping Brick, in need of replacement.

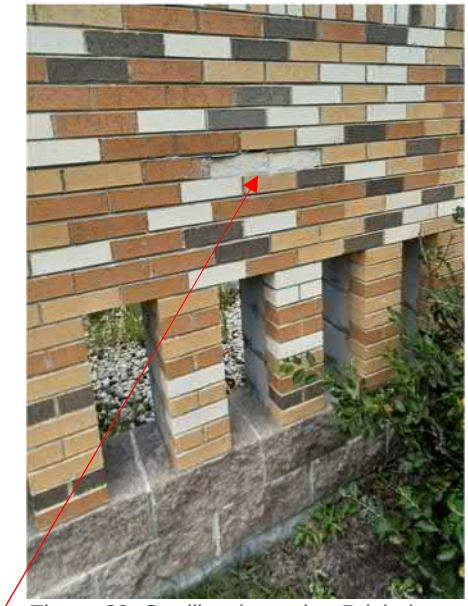

Figure 39: Spalling / popping Brick, in need of replacement

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Figure 40: Cracked and open mortar joints in need of tuckpointing in various areas.

Figure 41: Cracked and open mortar joints in need of tuckpointing in various areas.

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Above Roof Areas

Figure 42: Vertical brick to EIFS joints in need of resealing. Stone sills and smooth face CMU in need of power washing.

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Figure 43: Stone sills and smooth face CMU in need of power washing. Stone sills joints in need of joints being ground out and re-sealed with elastomeric sealant.

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Figure 44: Painted CMU in need of tuckpointing and re-painting.

Figure 45: other various areas of painted CUM walls, in fair condition. Future tuckpointing and painting (or covering with metal panel.) should be considered.

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Figure 46: Various brick 'piers' with areas of broken and open mortar joints in need of repair and tuckpointing.

Figure 47: Cracked mortar requiring repair and or replacement. Tuckpoint all broken and open joints.

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Figure 48: Cracked mortar requiring repair and or replacement.

Figure 49: CMU in need of repair, tuckpointing and painting.

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Figure 50: Cracked mortar, open joints requiring repair and or replacement.

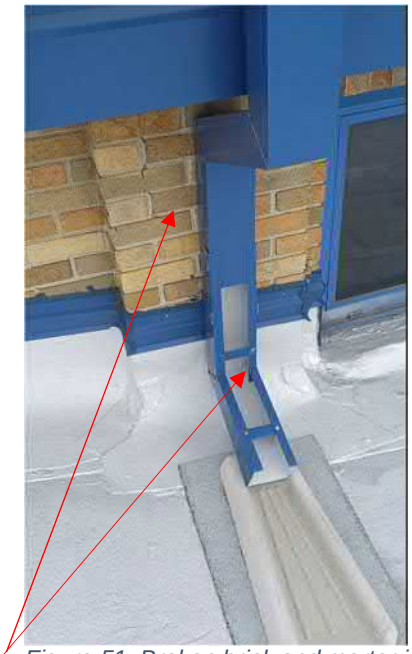

Figure 51: Broken brick and mortar in need of repair.

NOTES

Exterior sealants were observed around door and window openings, currently they appear to be water-tight.

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