ARNOLD & SCANGAS
ARCHITECTS

Diagnostic Report
For The Brick School Museum




Town of Georgia
47 Town Common Rd. No.
Georgia, Vermont 05568

The Loft at One Federal
1 Federal St., Suite 201
P.O. Box 135
St. Albans, Vermont
05478

This report was partially funded by a grant from the Preservation Trust of Vermont. Its contents are solely the responsibility of the author and do not necessarily represent the official position or policies of the Preservation Trust.

This is a preliminary diagnostic report on conditions available as part of visual observations at the time of our site visit. It is not a specification and should not be used as a basis for contractor bids. Bid Documents contain substantially more information on quantities, standards, schedules, details and conditions of work, which guide and protect both the Owner and the Contractor.

October 12, 2015

Mr. Michael R. McCarthy
Town Administrator
Town of Georgia
47 Town Common Rd. No.
Georgia, Vermont 05468

Dear Michael,

We have visually observed the Brick School Museum in Georgia, Vermont, to prepare a preliminary conditions diagnostic report. Below are the summarized findings of our site visit. At the end are recommended repairs in order of priority with associated preliminary estimates of probable construction costs.

Exterior View of Museum

Interior View of Museum

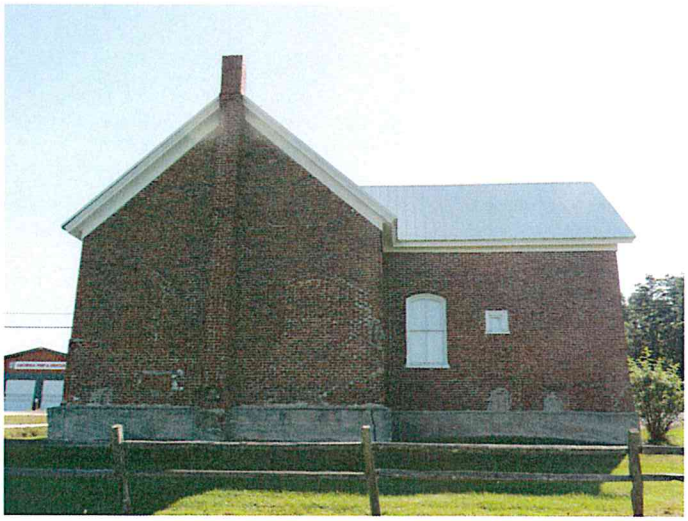
The Brick School Museum was constructed in 1891 and began as a one room school, housing first to eighth grades. It continued to be a one room school, later serving the first four grades. After serving the community for some 60 years as a school, the building it became obsolete and no longer function as a school. It was then sold. In 1973, fourteen years later, the school was given back to the Town of Georgia and today is the home of the Georgia Vermont Historical Society.

A. EXTERIOR:

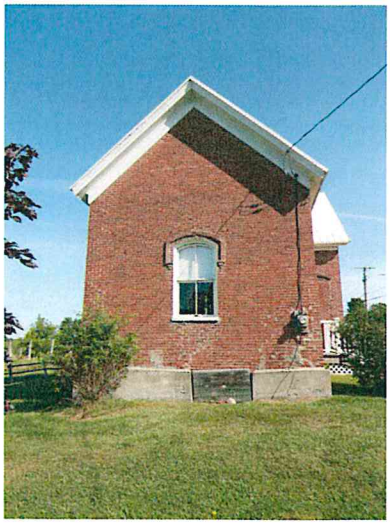
The existing Brick School Museum is a one and a half story brick veneer building with exterior and interior wood framed walls, floor and roof. It sits on its original stone foundation. At some point, the stone foundation was covered with a concrete facing. Its roof is a pre-finished corrugated metal roof that is not original. There is an existing brick chimney on the west side of the building that was added at a later time.

East Elevation

North Elevation



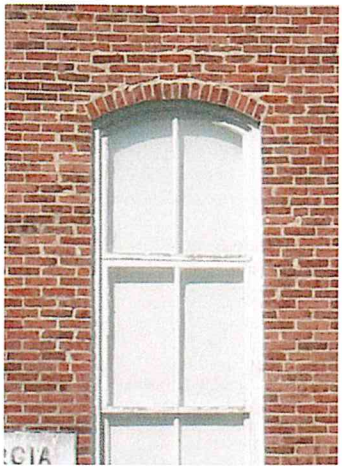
West Elevation



South Elevation

At some point, it appears that the projecting brick arched headers and dropped jambs above the windows were removed. New brick arched headers were installed flush with the exterior face of the brick veneer, leaving large mortar joints where the projected arched headers were located. Two doors, two windows and one infilled opening still have their original projecting brick arched headers.

Projecting brick arched and dropped jambs



Brick arched headers with large mortar joints

B. CORRUGATED ROOF:

The existing roof is a pre-finished corrugated roof and appears to be in good condition.

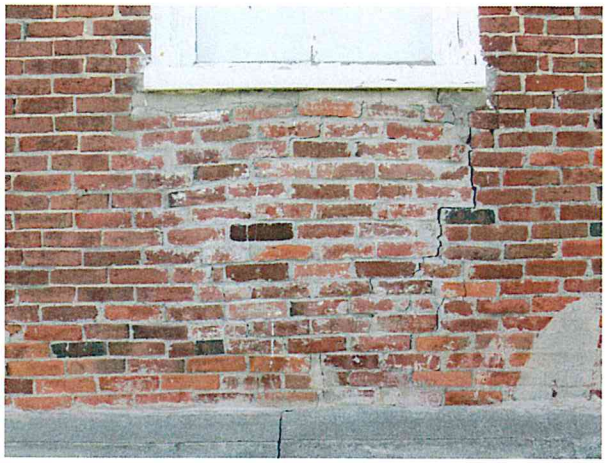
C. EXTERIOR BRICK VENEER:

The existing brick veneer is in poor condition in many areas of the building and needs attention. In a number of locations, the brick veneer has pulled away from the exterior wood framed wall. In a couple of areas, bricks were removed which allowed a visual observation of the existing exterior wood framed wall behind the brick. The wood framed wall has wood sheathing on the exterior face of the wall. Building paper has been installed over the wood sheathing and vertical wood strapping has been installed over the building paper. There is no evidence of brick ties from the back of the brick to the wood wall. The ties would have held the brick in place by connecting the brick to the exterior wood framed wall for support. In some places, the brick has pulled away up to 10 1/2" from the exterior wood wall. Where the brick veneer visually has not pulled away from the wall, there are mortar joints that have failed and are in need of repointing. Where a mortar joint has failed, the existing mortar has to be removed (if any remains) and new mortar installed. The new mortar joint should match the existing in color, texture, tooling and strength.

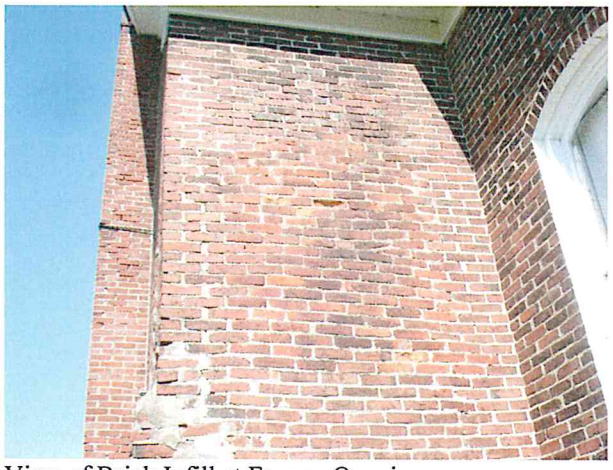
View of Brick Veneer in Poor Condition

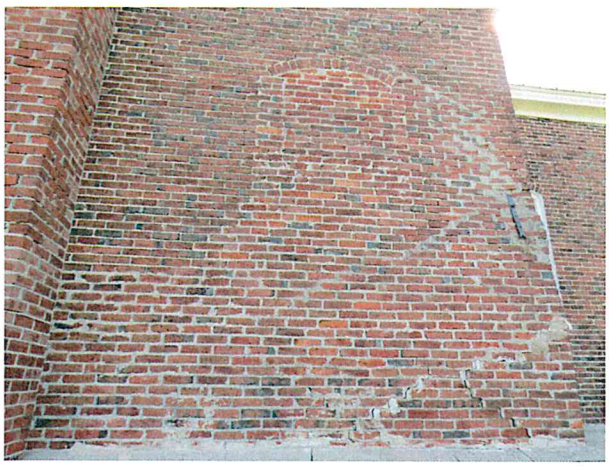
View of Brick Veneer in Poor Condition


View of Brick Veneer in Poor Condition


View of Brick Veneer in Poor Condition

There are other areas of the building where windows or other openings existed. These openings at some point were closed up with brick. Infills have brick courses running into each other, mortar joints of varying thickness and bricks that don't match existing brick. These infills should be removed and replaced with brick that match existing brick and mortar joints that match existing mortar joint.


View of Brick Infill at Former Opening


View of Brick Infill at Former Opening

Before any brick restoration work begins, all the brick should be cleaned with a restoration cleaner.

At the west side of the building, the existing brick chimney should be removed. At the west gable end of the west side of the building and the south side of the west gable, all the existing brick should be removed, damaged brick disposed of and bricks that are in good condition salvaged for reuse. New felt paper will need to be installed over the existing sheathing and the new/salvaged brick will need to be installed with brick ties. At the top of the gable, at the gap at the former chimney location, a new gable roof wood overhang should be installed to match the existing overhang

At the remaining west side of the building, south of the west gable, approximately one third of the brick at the bottom of the wall should be removed, damaged brick disposed of and bricks that are in good condition salvaged for reuse. New felt paper will need to be installed over the existing sheathing and new/salvaged brick will need to be installed with brick ties. Before the bricks are removed, the upper two thirds of brick wall that is to remain in place, needs to be repointed (approximately 50% of the joints need to be repointed), damaged brick replaced (new brick to match existing) and helical wall tie anchors installed.

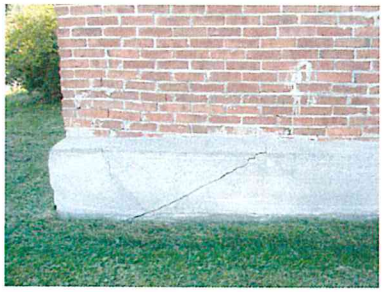
At the south side of the building, all the brick from the top of the foundation to the underside of the window sill height should be removed, damaged brick disposed of and bricks that are in good condition salvaged for reuse. New felt paper will need to be installed over the existing sheathing and new/salvaged brick will need to be installed with brick ties. Before the bricks are removed, the upper two thirds of brick wall that is to remain in place needs to be repointed (approximately 30% of the joints need to be repointed), damaged brick replaced (new brick to match existing) and helical wall tie anchors installed.

At the east side of the building, the brick is generally in good condition, the existing brick wall needs to be repointed (approximately 30% of the joints need to be repointed) and damaged brick replaced (new brick to match existing). There is some minor brick rebuilding required at the south east corner, infilled opening north of the entrance door (south face) and a small area under the three windows

At the north side of the building, all the brick from the top of the foundation to the underside of the window sills should be removed. At the west end of the north side, the brick from the top of the foundation to the top of the lower window sash should be removed. The damaged brick should be disposed of and bricks that are in good condition salvaged for reuse. New felt paper will need to be installed over the existing sheathing and new/salvaged brick will need to be installed with brick ties. Before the bricks are removed, the upper two thirds of brick wall that is to remain in place needs to be repointed (approximately 50% of the joints need to be repointed), damaged brick replaced (new brick to match existing) and helical wall tie anchors installed.

D. CONCRETE FACED FOUNDATION:

The existing stone foundation has a concrete facing. The existing stone foundation was not visible and its condition could not be assessed. There are several areas where the concrete facing has cracked and joints have opened. Along the west and north sides, in a number of areas, the sloped tops of the facing has separated from the concrete facing.



View of Existing Concrete Facing

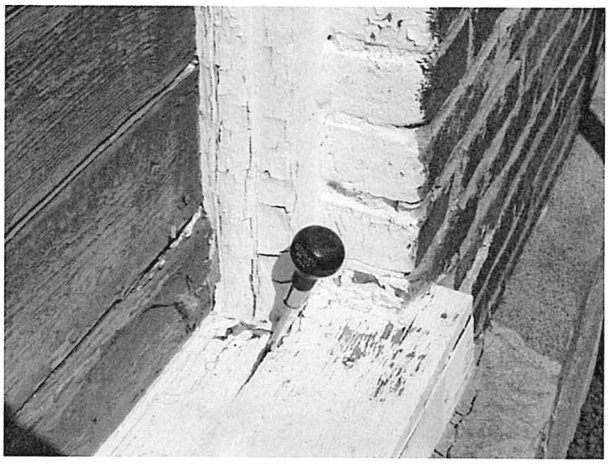
View of Concrete Facing

View of Sloped Top Concrete Facing

Existing cracks at the concrete facing should be hammered out, patched and infilled with new concrete, approximately 50% of the sloped tops need to be replaced. After repairs have been completed, the exposed surface should have "a stucco finish" applied to the exposed surfaces of the concrete facing.

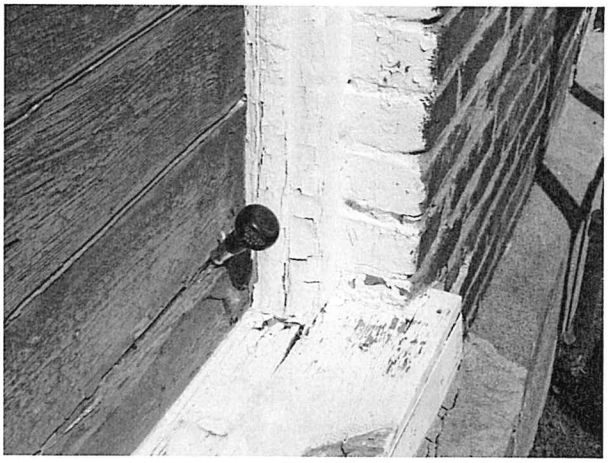
E. PAINTING/REFINISHING OF EXTERIOR TRIM, SILLS AND SIDING

There is a lack of upkeep on all painted surfaces of the building. Since the painting has not been maintained and has failed, painted wood items are beginning to suffer water damage and rot. Existing joints need to be sealed to prevent water from entering the exterior wall and causing further damage.

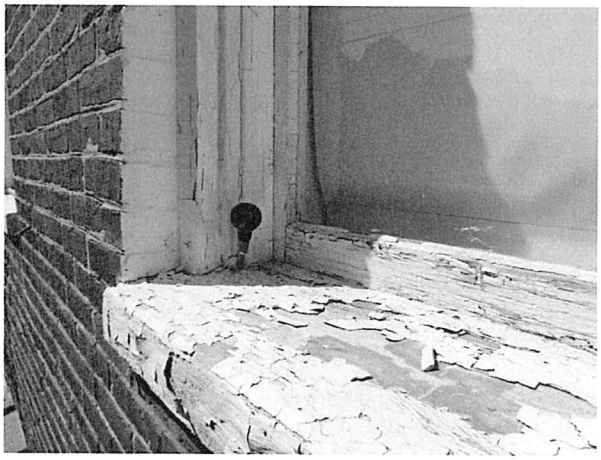


View of Failed Joint at Sill

View of Failed Joint Where Sill Meets Window Frame



View of Failed Joint at Infill Siding



View Existing Sill that has rotted at Window Frame

All existing exterior wood surfaces of the building, should be scraped of all loose paint, sanded and prepped for painting. Any open joints need to be sealed/caulked. Damaged wood trim pieces, siding and windows sills should be replaced. New wood trim pieces, siding and sills should match existing. All wood surfaces are to be primed and have two finish coats of paint applied.

F. Windows:

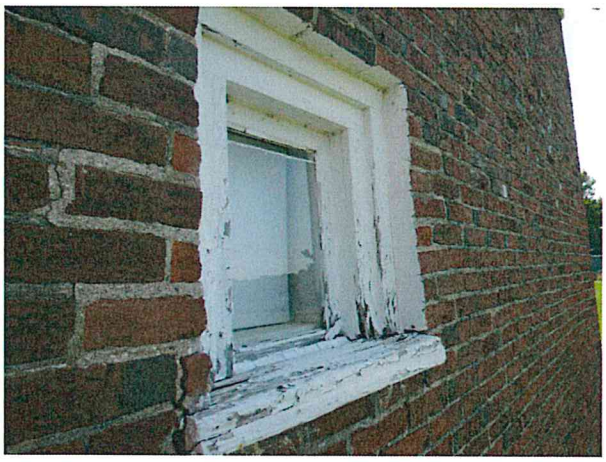
View of Failed Window Joint

View of Failed Window Joint

View of Failed Joint at Muntin Bar

The same damage that is occurring to the wood surfaces of the building, due to the lack of maintenance and lack of having paint on these surfaces, is beginning to happen to the existing windows as well. Joints at windows are beginning to fail as well as window parts. The existing glazing putty at most windows is either missing or falling apart. If windows are not maintained, it makes it difficult for windows to keep water from entering the building.

One window has completely failed. The existing sashes, frame, sill and trim should be removed and be completely replaced. The new window sashes, frame, sill and trim should match existing.



View of Existing Window to be Replaced

Close up View of Damaged Window to be replaced

G. INTERIORS

View of Former Classroom

The interior of the Brick School Museum consists of one large room, which was the original classroom. It has wood trim on the walls with bead board paneling between the trim. There is wood bead board paneling at the ceiling with decorative trim at the three ceiling light fixtures. The existing floor is wood.

The remaining interior spaces consist of secondary rooms that supported the classroom. Wall finishes in those spaces include bead board paneling above horizontal boarding, bead board paneling on the walls with a simple half round chair rail. The wainscoting in one of the rooms consists of horizontal boarding. There is bead board paneling at the ceilings and wood flooring at the floors. The interior spaces are in good condition and no work is suggested.

View of Other Interior Spaces

HIGH PRIORITY

A. At the west side of the building, the existing brick chimney should be removed. At the west gable end of the west side of the building and the south side of the west gable, all the existing brick should be removed, damaged brick disposed of and bricks that are in good condition salvaged for reuse. New felt paper will need to be installed over the existing sheathing and new/salvaged brick will need to be installed with brick ties. At the top of the gable, at the gap at the former chimney location, a new gable roof wood overhang should be installed to match the existing overhang: $ 28,700 – $ 42,500

B. At the remaining west side of the building, south of the west gable, approximately one third of the brick at the bottom of the wall should be removed, damaged brick disposed of and bricks that are in good condition salvaged for reuse. New felt paper installed over the existing sheathing and new/salvaged brick installed with brick ties. Before the bricks are removed, the upper two thirds of brick wall that is to remain in place, needs to be repointed (approximately 50% of the joints need to be repointed), damaged brick replaced (new brick to match existing) and helical wall tie anchors installed: $ 12,300 – $ 18,900

C. At the south side of the building, all the brick from the top of the foundation to the underside of the window sill height should be removed, damaged brick disposed of and bricks that are in good condition salvaged for reuse. New felt paper will need to be installed over the existing sheathing and new/salvaged brick will need to be installed with brick ties. Before the bricks are removed, the upper two thirds of brick wall that is to remain in place needs to be repointed (approximately 30% of the joints need to be repointed), damaged brick replaced (new brick to match existing) and helical wall tie anchors installed: $ 14,800 – $ 20,900

D. At the east side of the building, the brick is generally in good condition, the existing brick wall needs to be repointed (approximately 30% of the joints need to be repointed) and damaged brick replaced (new brick to match existing). There is some minor brick rebuilding required at the south east corner, infilled opening north of the entrance door (south face) and a small area under the three windows: $ 3,000 – $ 4,700

E. At the north side of the building, all the brick from the top of the foundation to the underside of the window sills should be removed. At the west end of the north side, the brick from the top of the foundation to the top of the lower window sash should be removed. The damaged brick should be disposed of and bricks that are in good condition salvaged for reuse. New felt paper will need to be installed over the existing sheathing and new/salvaged brick will need to be installed with brick ties. Before the brick are removed, the upper two thirds of brick wall that is to remain in place needs to be repointed (approximately 50% of the joints need to be repointed), damaged brick replaced (new brick to match existing) and helical wall tie anchors installed: $ 11,800 – $ 17,300

MEDIUM PRIORITY

F. Repair the existing concrete facing: Existing cracks at the concrete facing should be hammered out, patched and infilled with new concrete, approximately 50% of the sloped tops need to be replaced. After repairs have been completed, the exposed surface should have "a stucco finish" applied to the exposed surfaces of the concrete facing: $ 6,300 – $ 10,300

G. West Side: Replace existing window sashes at larger window, match existing, painted. Replace window, frame and trim at smaller widow, match existing, painted. At existing window frame and trim, scraped of all loose paint, sand and paint (one coat primer and two finish coats), seal/caulk joints at window trim/brick intersection: $ 2,200 – $ 3,700

H. South Side: Replace existing window sashes, match existing, painted. At existing window frame and trim, scraped of all loose paint, sand and paint (one coat primer and two finish coats), seal/caulk joints at window trim/brick intersection: $ 1,500 – $ 2,800

I. East Side: Replace three existing window sills, rebuild three lower window sashes and replace existing glazing putty with linseed oil and glazing putty at all windows. At existing windows, window frame, door and door and window trim, scraped of all loose paint, sand and paint (one coat primer and two finish coats), seal/caulk joints at window/door trim/brick intersection: $ 4,900 – $ 7,600

J. North Side: Replace one existing window sill, rebuild two lower and two center window sashes and replace existing glazing putty with linseed oil and glazing putty at all windows. At existing windows, window frame and window trim, scraped of all loose paint, sand and paint (one coat primer and two finish coats), seal/caulk joints at window trim/brick intersection: $ 3,300 – $ 4,900