



MEMO

DATE: September 25, 2023
TO: Jeremy Tammi, Superintendent
FROM: Mike Petrich

Re: Roof Leaks

On June 29, 2023, I was notified by the district of a roof leaks at the school after the building was re-roofed in the fall of 2022. The district had already contacted the roofing company and the roofing company was coming out to investigate. ARI made an initial site visit on July 13th, 2023, after the district had notified me that the roofing contractor had been onsite and had notified them that the leaks were not coming from the roof. During my site visit I had a discussion with District staff as to when the leaks were occurring. The district stated that the leaks were occurring during wind driven rain events and that they experienced no leaking during the spring melt. After touring the facility to identify where the leaks were occurring it was noted that most were occurring where a transition from low roof to wall for an upper roof occurred. Upon completion of the initial investigation, it was determined that farther investigation would need to take place with the help of a masonry contractor as the most probable cause of the leaks would seem to be the through wall flashing that was installed when the building was built was no longer working properly. On August 17th, 2023, ARI and Building Restoration made a site visit to investigate the though wall flashing. Building Restoration remove bricks at (2) locations along the upper wall so that the though wall flashing could be observed.

Observation Notes

Date: August 17, 2023 (date of all photos and primary investigation. Notes from other dates as identified).

Weather: Overcast, 50 degrees Fahrenheit

Time: 9:00 a.m.

Investigation:

On August 17th, 2023, Building Restoration and ARI were onsite to investigate the through wall flashing. (2) random areas along (2) different walls experiencing leaking were chosen to have bricks removed so that the though wall flashing could be observed. Upon removal of brick photos were taken to document the condition of the existing though wall flashing. The removed bricks were re-installed upon completion of photos.

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Brick removal area 1



Through wall flashing appears to be worn through in multiple location @ test cut area.

Recommendation:
Replace through wall flashing or cover wall to eliminate need for through wall flashing.

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Brick removal area 2



Though wall flashing is cracked at horizontal/vertical transition @ test cut area.


Recommendation:
Replace through wall flashing or cover wall to eliminate need for through wall flashing.

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Item #	Northome Schools BUDGET Attachment A - Budget Estimate Price Page Date: 8/22/2023	
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General Conditions Budget Estimate:		QTY	Unit	Low Range	Mid Range	High Range
GCs	General Conditions: mobilization, job setup, insurance, access equipment expense, misc. work related equipment, tools, protections related to masonry work, trucking, job fuel, debris removal, superintendent, final cleanup, etc.	1	LS	\$ 46,856	\$ 55,125	\$ 63,394
Work Scope Budget Estimate:		QTY	Unit	Low Range	Mid Range	High Range
1	Removal of 3 courses of brick, installation of a thru wall flashing system, relay 3 courses of brick, similar to existing	1	LS	\$ 191,250	\$ 225,000	\$ 258,750
2	Cover brick with a sheet metal covering, using wood and membrane to protect the brick, tying into the top cap and roofing metal	1	LS	\$ 133,875	\$ 157,500	\$ 181,125
		QTY	Unit	Low Range	Mid Range	High Range
BUDGET ESTIMATE TOTALS:		1	LS	\$ 371,981	\$ 437,625	\$ 503,269

PRICE PAGE CONTINUED:

Notes:

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| 1 | DO NOT MISTAKE THESE BUDGET RANGES AS A HARD BID TO PERFORM THIS WORK. This is a preliminary budget to assist with project planning. We welcome the opportunity to competitively bid this work when bid documents are available and a finalized work scope with specific bid quantities has been developed by the A/E. |
| 2 | Budget pricing quantity estimates are based on the exterior masonry wall areas that are currently exposed to the elements, not covered or obstructed by other building additions and that are reasonably accessible from the exterior. |
| 3 | If the repairs are done in future years you should anticipate that labor and material costs will rise approximately 5% per year and that the building will deteriorate approximately 5% per year, thus it is prudent to budget an additional 10% for each year after this budget was prepared. Do not select only the low numbers from the budget ranges (if ranges have been provided). If you do, there will not be enough funds to accomplish the needed repairs. |

Preliminary Budget Exclusions:

Prevailing wages, overtime wages, permits, bonding, roofing work, window and door replacement, interior work including interior clean up and wall repair, heat and cover enclosures, winter conditions, sheet metal work, concrete or pavement work, wall obstruction removal, restoration cleaning, masonry water repellent application, hazardous material removal or abatement, painting or wall coatings, existing wall coatings and painted area touch up or repair, paint stripping, structural shoring, structural modifications, custom or special order materials, or anything not specifically listed above.

BUILDING RESTORATION CORPORATION

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