

Exterior Examination of Sanctuary walls:

This picture highlights the wall construction of exterior brink against interior block/masonry.



The picture below shows the the brick flaking and deterioration that takes place.



Current examples of brick flaking and brick efflorescence on the sanctuary walls.



If you look around the sanctuary you will see the ways moisture intrusion affects the interior walls.

Options:

- 1) Brick Reclad
 - a. Maintains current appearance
 - b. Has long life expectancy
 - c. Most expensive
 - d. Most labor intensive
 - e. Does not allow for adding insulation to the sanctuary wallsCost estimate: \$695,000
- 2) Brick Veneer overclad
 - a. Maintains current aesthetic
 - b. Widely used
 - c. Second most labor intensive
 - d. Would require additional engineering work to review weight/structural analysis
 - e. Would not allow for insulation to be added to sanctuary wallsCost estimate: \$560,000
- 3) Adhered Thin Brick overclad
 - a. Allows maintaining current appearance
 - b. Less labor intensive than options 1 & 2
 - c. Would allow for addition of insulation
 - d. Additional maintenance likely over its lifespan (more frequent repointing, localized brick replacement)Cost estimate: \$441,000
- 4) Covering with aluminum composite panels
 - a. Requires minimum maintenance and has long life-expectancy
 - b. Allows for including insulation
 - c. Would give a completely different look to sanctuary wallsCost estimate: \$477,000
- 5) **Exterior Finish Insulation System (EFIS) (*option recommended by Property and Council*)**
 - a. **Can be finished to be close to original look; or can give a different look to the exterior (depending on desires of the congregation)**
 - b. **Includes additional insulation**
 - c. **Less labor intensive**
 - d. **Creates integrated wall system and barrier**
 - e. **Quality can be dependent on execution of work**
 - f. **Exterior can be damaged by flying objects (major hail storms, branches, etc.)**
 - g. **Does potentially require on-going repair**Cost estimate: \$285,000
- 6) Restoration of Existing Masonry
 - a. Keeps current aesthetic
 - b. Would not correct underlying issue of drainage/moisture intrusion
 - c. Would require on-going maintenance; would need sealant applied at least every 3 years (this does not deal with any larger cracks or mortar failure)
 - d. Most likely to fail at some point and continue water damage and corrosion on beamsCost estimate: \$50,000

The full report from WJE is available to anyone in the congregation who is interested.

Recommended option:
#5 EXTERIOR INSULATION AND FINISH SYSTEM (EIFS) OVERCLAD



The example to the left highlights the EIFS system with the layers involved.

The example below highlights a building utilizing EIFS and matching it to look like brick.

Substrate: Glass Mat Gypsum sheathing in compliance with ASTM C 1177, Exterior or Exposure I wood-based sheathing (plywood or OSB), code compliant concrete, concrete masonry or portland cement plaster, existing structurally sound, uncoated brick or other masonry wall construction.

1)	StoGuard® Air and Moisture Barrier
2)	Three adhesive options: Sto TurboStick™, Sto Primer/Adhesive, Sto Primer/Adhesive-B
3)	Sto EPS Insulation Board
4)	Sto Mesh (embedded in Sto base coat)
5)	Two base coat options: Sto Primer/Adhesive, or Sto Primer/Adhesive-B
6)	Sto Primer Sand (optional)
7)	Sto Textured Finish: Sto Essence DPR

