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July 22, 2019

North Clarendon Chapel  
% Nicolette Asselin  
PO Box 329  
Clarendon, Vermont 05777

Dear Ms. Asselin,

It is my pleasure to present you and your board with the following report based on my visit with you and your assistant at the North Clarendon Chapel on May 31, 2019. This report is a summary of our conversation and the observations I made during my time on site as well as from notes made reviewing the assessment completed by Thomas Keefe in 2017.

If you have additional questions please feel free to ask. And please keep me informed as plans for the building's preservation move forward.

Sincerely,

Jackson Evans  
Black Sash Restoration, LLC

## Condition Assessment of Windows and Doors at North Clarendon Chapel

### *General Description*

The sash windows in the main sanctuary at the North Clarendon Chapel are comprised of eight (8) arched top double hung sash wood frames in a Queen Anne style. The upper glazed arch on the top sash displays four glass panes of colored glass arranged in an array and supported visually by two stacked colored glass panes below surrounding a large central clear or frosted pane. The bottom sash displays 10 small colored panes surrounding a large central pane on the sides and bottom. The rear addition to the sanctuary contains two (2) six-over-six double hung wood sash windows with clear glass.

### *Overall Condition*

All of the windows noted above require significant restoration work. This will require labelling and carefully removing all sash to a workshop for bench repairs. Many panes of colored glass are either damaged or missing entirely.

### *Recommendations for Restoration*

1. Top and bottom sash should be removed by a window restoration professional and labelled for reinstallation in their original openings. Sash should be taken to a workshop for bench repairs.
2. Interior sash stops (see "*Anatomy of a Double-Hung Window*" in the Appendix of this report for diagram of window parts) will be similarly labeled and removed for bench repairs.
3. Parting beads should be removed and salvaged if possible or replaced in-kind if not salvageable. These should be labeled as well for later re-installation.
4. Bench repairs will follow a similar pattern to that described below:
  - a. All extant glass will be labeled using Sharpie or grease pencil for re-installation in their original sash.
  - b. Glazing putty will be removed using steam, chisel or putty knife, whichever method is found to be the gentlest possible with great care taken not to damage any of the intact panes.
  - c. Glazing rabbets will be scraped of remaining putty or paint.

- d. Interior and exterior paint will be removed using appropriate methods to a point of refusal.
  - e. Repairs to the sash frames will be made using Dutchmen patches of matching wood species or epoxy fillers.
  - f. Any repairs to the joints will not use screws, glue or other metal hardware.
  - g. All bare wood surfaces will be consolidated with a linseed oil mixture or similar.
  - h. Hardware will be cleaned and oiled in place.
  - i. Frames will be primed using an approved primer with care taken not to paint the glazing rabbets.
  - j. Glass will be reinstalled using linseed oil based glazing putty (Sarco Multiglaze or AllBack).
    - i. Bed glazing will be laid down first, followed by glass, careful bedded, glazing points installed, and top glazing putty after that.
  - k. Putty will be allowed to cure for the entire time recommended by the manufacturer.
  - l. Once cured, the interior and exterior of the sash will be painted with two coats of approved paint.
  - m. After the paint has been allowed to cure, the glass will be cleaned prior to transport back to the site for reinstallation.
  - n. Parting beads that were salvageable will be scraped to a point of refusal, primed and painted with two top coats.
  - o. Interior sash stops will be scraped to a point of refusal, primed and painted with two top coats.
5. Following bench repairs, the sash will be reinstalled in their original locations.
  6. The sash stops will be installed and “tuned” to allow for easy operation of the sash.

While the sash are removed for bench repairs, work on the interior and exterior jambs, sills, casings can be carried out. That work should be carried out as follows:

1. Loose or failing paint should be hand scraped to a point of refusal on both the interior and exterior. **NOTE: given the age of the building, the likelihood of the presence of lead paint is high. All appropriate and statutorily prescribed lead safe work practices should be adhered to rigorously.**
2. The exterior sill, casings and jambs all show signs of significant weather checking as a result of loss of paint. These areas should be treated with a consolidating product (Abatron Liquid Wood is one example) in order to prepare the surface for epoxy repairs.

3. Once the treated wood surfaces have been allowed to dry, deep checking and cracks, especially along the window sill, should be filled with a specially formulated wood epoxy (Abatron WoodEpoxy is one example) following the manufacturer's recommendations for application and curing.
4. Any missing members should be replaced in-kind with new members milled to match from an appropriate D Select or better grade lumber.
5. Once replacement in-kind and epoxy repairs are completed, the surfaces should be primed with a high quality primer as specified by the project manager.

While the windows are out for restoration work, the openings should be secured with plywood. Another option would be to install new storm windows on the exterior to secure the openings left by the removed window.

#### *Storm Window Recommendations*

The addition of storm windows will provide a layer of protection for the historic wood windows as well as make the interior of the building more comfortable. Whether those storm windows are applied to the interior or the exterior of the building is a decision the board must make. This decision can affect the aesthetics of the building overall as well as the level of protection provided to the historic wood windows.

#### *Rough Cost Estimate for the Above Described Work*

The following is a rough cost estimate for the completion of window and entry door restoration work. This estimate is intended for planning purposes only and may be used as a starting point for seeking grant funding or preparing to bid the project out.

Window Restoration	\$1,200 - \$1,500 per window opening for arch topped windows \$600 - \$800 per window opening for six-over-six windows
Subtotal Windows	\$10,800 - \$13,600
Storm Windows	\$1,000 - \$1,200 per window opening
Doorway Restoration	\$1,000 - \$1,200
<b>Total</b>	<b>\$12,800 - \$16,000</b>

*Sample Window and Door Restoration RFP*

The following is provided as a sample Request for Proposals (RFP) that could be used to solicit bids from qualified window restoration professionals in order to competitively bid the work for the windows at the North Clarendon Chapel. A list of qualified window restoration professionals is maintained by the Preservation Trust of Vermont at the following web address:

[http://ptvermont.org/vermontrestorationdirectory/wpbdp\\_category/windows-doors-restoration-conservation/](http://ptvermont.org/vermontrestorationdirectory/wpbdp_category/windows-doors-restoration-conservation/)

**Request for Proposals: North Clarendon Chapel Window and Door Restoration**

The North Clarendon Historical Society is seeking bids from qualified window restoration professionals and firms for the restoration of ten (10) historic wood sash windows and one (1) historic entry door at the North Clarendon Chapel. This project also includes the purchase and installation of storm windows.

A meeting [*this can be mandatory or voluntary and you can hold more than one if bidders can't make it*] of interested bidders will be held on \_\_\_\_ (date) \_\_\_\_\_ at \_\_\_\_ (time) \_\_\_\_\_ at the North Clarendon Chapel, 537 Old Route 7, North Clarendon, Vermont 05759

Work will be carried between \_\_\_\_\_ (date) and \_\_\_\_\_ (date) \_\_\_\_\_ with project completion no later than \_\_\_\_\_ (date).

Sealed bids must be postmarked, hand delivered or emailed no later than \_\_\_\_\_ (date TBD) \_\_\_\_\_ and will be opened and reviewed on \_\_\_\_\_ (date TBD) \_\_\_\_\_ with all bidders notified of the outcome to follow.

Scope of Project:

-restoration of eight (8) roughly 34" wide by 82" tall arched top double hung wood sash windows in the Queen Anne style with colored glass borders

- restoration of two (2) roughly 34" wide by 68" tall double hung wood sash windows
- restoration of one (1) wood entry door and surround
- purchase and installation of high quality storm windows for all windows noted above

For questions or additional information please contact: (name, email and phone)

(END of RFP)

### *Conclusion*

The historic windows at the North Clarendon Chapel are one of the few areas of embellishment on an otherwise unadorned country church. For this reason they carry a great deal of historic and aesthetic significance and warrant carefully restoration. Once restored the windows will provide an outward and very visible representation of the progress being made on the overall restoration of this wonderful community asset.