



Project Completion Report

Fiscal Year 2008

**Chapel of the
Transfiguration Window
Repair**

Grand Teton National Park

Start Date: October 2007
Completion Date: May 2008
Funding Source: St. John's Episcopal Church,
Jackson, WY
Cost: \$6,575.54

Partners: National Park Service; Western
Center for Historic Preservation; St. John's
Episcopal Church, Jackson, WY

Project Leader: Bob Williams, Al Williams,
Hank McCurdy



Chapel of the Transfiguration

Background Narrative:

The Chapel of the Transfiguration is a rustic-style chapel located in Grand Teton National Park. It is operated under the leadership of St. John's Episcopal Church of Jackson, Wyoming.

Description of the Project:

Both the stained glass windows and casement windows in the Chapel of the Transfiguration were in need of repairs to the wood framing as well as the panes. The goals of the project were to restore eight double casement windows, remove two stained glass windows for repair by a local contractor, and repair framing and sills for all ten windows. Because of their expertise in the repair of historic wooden windows and their physical proximity within the park, the Western Center for Historic Preservation expert carpenters completed the repairs as a project at the WCHP woodshop. This repair project preserved the historic windows from further degradation and further insured their longevity for the enjoyment of future visitors.

Summary of Work:

The work completed by the Western Center for Historic Preservation was completed in three phases. The first phase included the removal of all windows. Window openings were covered with dark brown painted $\frac{3}{4}$ " plywood for the

duration of the window repair phase. They were carefully labeled and transported to the WCHP woodshop. Broken glass panes from the windows were removed, labeled, and made available to the St. John's Episcopal Church. Replacement glass was obtained from Kokomo Opalescent Glass Company and used to replace broken panes. The WCHP carpenters began by repairing windows that did not have any broken panes in an effort to maximize productivity while waiting for new panes to arrive for those that needed to be replaced. On all windows, the damaged glazing compounds were removed and replaced with in-kind material. For the window exteriors, repairs were made to damaged areas through dutchman and epoxy repairs. In a minority of cases, full replacement of muttons was necessary. Where astragals appeared to be retrofits to compensate for gaps caused by building settlement and expansion/contraction issues, the WCHP reworked the existing wood. The interior of the windows were in good shape, so the WCHP cleaned the windows but did not perform any major repairs. The woodwork completed during this portion of the repair work was then only primed in an effort to allow St. John's Episcopal to utilize more cost-effective options for the repainting of the windows. Congregation members volunteered to paint the windows. In the process of the volunteer paint jobs, six of the interiors of the windows were painted when they were only meant to be stained. The stripping and re-staining of these interiors did add to the work load and cost of the project for WCHP.

The second phase of the project on the Chapel of the Transfiguration included repairs to the exterior framing and sill repair work. The WCHP worked on one window sill at a time while replacing the plywood at night in order to secure the building. Any split or severely damaged wood was replaced-in-kind. Most framing and sills were repaired using epoxy and/or dutchman repairs. Again, the woodwork completed during this portion of the repair work was then only primed in an effort to allow St. John's Episcopal to utilize more cost-effective options for the repainting of the windows. Continuing on in the second phase of the project, the jambs and casings were replaced for the stained glass windows. St. John's Episcopal was also responsible for the replacement of the protective screens on the exterior of the stained glass windows.

The third phase of the project consisted of the re-installment of the window sashes in the Chapel of the Transfiguration. Part of the goal of phase one of the project was to repair the windows in such a way that would permit the half-lap joint to work effectively and properly again, precluding the need for astragals. In order to do this, the WCHP shimmed and trimmed the window jams in a way that allowed the windows to hang correctly. One hinge was replaced to match historic hinges.

Financial Summary:

Grand Teton Natural History Association set up an account to transfer the funds to the park from St. John's Episcopal Church.

Stained Glass Window (quantity: 2 windows)

Removal, fabrication of protective box, securing opening with plywood, repairing casement and jamb, priming repair work, and installation of stained glass window and covering (\$631.47 ea. x 2 windows).....**\$1,262.93**

Casement Windows (quantity: 16 sash)

Removal, securing opening with plywood, removing broken panes, reworking astragal, reglazing, repairing and replacing mullions, priming repairs, tightening window, removing plywood, trimming and installing sash (332.04 ea. x 16 sash).....**\$5,312.61**

Total Project.....\$6,575.54

Conclusion for Future Preservation:

The project at the Chapel of the Transfiguration was successful in repairing the existing historic windows with responsible preservation practices meant to retain the highest amount of historic fabric possible. All other repairs were replaced-in-kind. Many of the repairs needed on the windows and their framing were due to the effects of harsh exterior weather conditions. In the future, more repairs may be needed to combat the same type of weather-caused problems.

Photos:



Figure 1: An exterior photograph of the chapel before the window repairs.



Figure 2: Missing hardware that was causing further damage to framing and sills.



Figure 3: Unpainted, cracked, and rotting sills and framework.



Figure 4: Insufficient mesh & distressed sill.

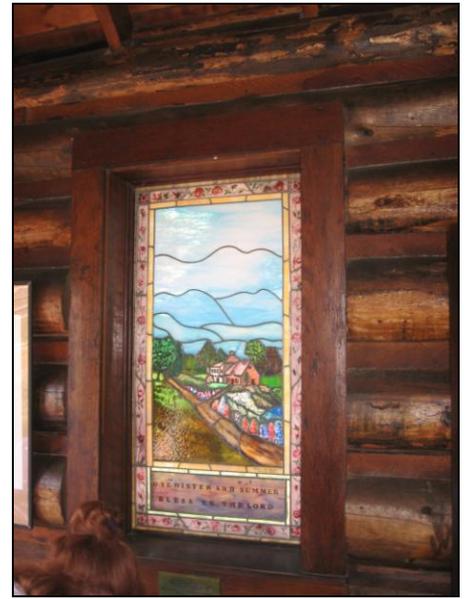
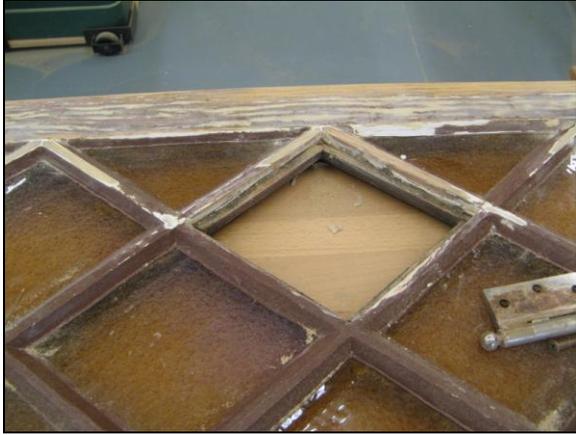


Figure 5: Stained glass window before repairs.



Figure 6: Al Williams, WCHP, stripping existing paint from windows.



Figures 7 & 8: Replacement and reglazing of similarly colored glass pane.



Figure 9: Repaired stained glass window before painting of exterior.



Figure 10: David Stubbs, WCHP, reinstalling paned window sashes into their framing.