



Historic Structures Report
Norway Lutheran Church (Muskego)
for
Luther Seminary
St. Paul, Minnesota

Claybaugh Preservation Architecture Inc
Stark Preservation Planning LLC
Barn Repair Specialists
Revised March 2015



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Prepared by

Robert Claybaugh AIA
Will Stark
Jay Schmidt
Revised March 2015

Norway Lutheran Church (Muskego) Historic Structures Report St. Paul, Minnesota

INTRODUCTION

The Church was dedicated in 1845 and was the first Lutheran Church in the United States established by Norwegian immigrants. The church served until 1869 when a stone church was erected. The original building was moved and used for storage. The church was discovered and rescued in 1904 when it was dismantled and reconstructed on the Luther Seminary campus. The church was listed on the National Register in 1975 and continues to serve for special services and public tours.

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PROJECT SCOPE

- Document the construction, repair and maintenance record of the church.
- Assess the current condition.
- Identify necessary steps to secure, repair and restore the church.
- Provide a sequence of needed repairs to be completed in subsequent phases.

PROJECT TEAM

Robert J. Claybaugh AIA served as project manager and has over 20 years' experience in managing the restoration of historic buildings and sites. His involvement would include project management, site documentation and schematic planning.

Claybaugh Preservation Architecture Inc (CPAi), founded in 1989, provides outstanding architectural and technical services for owners and managers of historic buildings and sites. CPAi also provides consulting services to design professionals, and training for historic preservation professionals and laypeople. Principal Robert J. Claybaugh has extensive experience with preservation projects and a demonstrated commitment to preserving our built environment.

Claybaugh Preservation Architecture has provided restoration design services for Minnesota Historic Society properties at Lindbergh Boyhood Home, Historic Fort Snelling, Sibley House Historic Site, Split Rock Lighthouse, Folsom House, Historic Forestville, Lower Sioux Agency and North West Fur Post. Other historic site experience includes the Washington County Historic Courthouse, Mabel Tainter Memorial Auditorium and the Robert A. Long Mansion. In 2002, Bob directed the award-winning restoration of the Olof Swensson Barn in Chippewa

County. Work included stabilization of the foundation and structural frame, restoration of the building envelope, and accessibility improvements.

Will Stark served as the architectural historian for the project. Will Stark has spent the last decade directing a wide variety of research, survey, and consulting projects for architectural history, and supporting organization that preserve our valued heritage. Grounded with strong academic credentials, Will has made important and thoughtful contributions to the identification, documentation and protection of historic resources in Minnesota, Missouri, North Dakota, South Dakota, Wisconsin and Iowa. Will has experience conducting all phases of cultural resources planning, including research, survey, documentation, assessment of effects, and mitigation. Rural farmsteads, grain elevators, industrial facilities, landscapes, bridges, cemeteries, schools, big-city and small-town commercial buildings and houses, are among the resources types that Will has studied and evaluated. Will meets the Secretary of the Interior's Standards for History and Architectural History.

Jay Schmidt specializes in the preservation of log buildings and timber frame barns. His experience on these types of historic structures spans over 30 years. Jay is skilled at dismantling and reassembling log buildings as well as inserting replacement logs. Jay currently has two log cabins that he has moved and is in the process of restoring. Jay brings his hands on experience with log structures to our team. His expertise will greatly enhance our ability to assess the Muskego Church and develop appropriate restoration recommendations

PROJECT APPROACH:

Building Documentation

The site evaluation team of Robert Claybaugh, Will Stark and Jay Schmidt visited the site on July 16, 2014 to measure and photograph the church in order to prepare existing condition plans and photographs. We are fortunate to have HABS drawings of the church prepared in 1934. These will be the basis for the CAD plans and elevations that we will generate for the Historic Structures Report.

During our site investigation, we documented the condition of the log structure and annotated the elevations to document the conditions.

Our condition analysis includes:

- Log structure
- Roof structure, roofing and drainage systems
- Floor structure.
- Stone foundation. Samples of the foundation mortar were taken for analysis to establish the appropriate mortar mix for repointing work

Historical Documentation

Understanding the physical evolution of a historic building is an essential first step in completing a Historic Structures Report. Knowing when, how and why alterations were made to a building can lead to meaningful answers to root causes of current condition issues. Will Stark conducted detailed research on the Muskego Church building from available resources at the Luther Seminary Archives, the seminary building facilities department, the Minnesota Historical Society, the Minnesota State Historic Preservation Office, and the City of St. Paul Office of Safety and Inspections.

A detailed description of the Muskego Church provides an account of the building's current appearance and condition. A history of the Muskego Church provides an outline of its evolution since its construction in 1843 and emphasizes documented and/or observed changes to the physical location, appearance, structure and material, including the most recent restoration and repair efforts. Detailed listings of alterations are provided in chronological order. The narrative includes a brief discussion of the property's period of significance related to its move in 1904 and the restoration work that occurred at that time.

Description

The Norway Lutheran Church (hereinafter referred to as “Muskego Church”) is located on the campus of Luther Theological Seminary at 2375 Como Avenue West, St. Paul, Ramsey County, Minnesota. It is situated on a rise near the eastern side of the campus and approached by flight of concrete steps. Both single-family dwellings and academic buildings surround the structure, and a stand of pines is planted around the building.

The structure measures approximately 40 ½’ in length (east to west), and is composed of two parts: the nave (on the west) and the chancel (on the east). Each unit comprises about one half of the length and is symmetrically aligned on the axis. The interior measurement of the nave is 26’-2” wide while the chancel portion narrows to 20’-3”. The walls stand a 13’ 9” in height, which accommodates a gallery in the nave’s interior. The foundation is constructed of native rough-cut limestone laid with mortar. An earthen floor is present below the wood floor joists. All exterior walls are made of red oak logs hand-hewn to form flat surfaces approximately six inches thick. The logs are saddle-notched at the joints and the log crowns extend a few inches from the exterior corners. A Roman numeral log numbering system incised into the logs, used when it was reconstructed at this site, is visible in some interior and exterior locations. The chinking found between most logs is composed of a formula of Portland cement, latex grout, hydrated lime, and washed sand, and was replaced c. 1993. The gabled roof has open eaves. It is clad in wood shingles and topped with a metal ridge cap and spherical finials. The roof of the chancel is about two feet lower than the nave. The east and west gable ends are covered with wide, unpainted, horizontal lap siding.

Windows are evenly spaced on the north and south sides in three bays – two in the nave and one in the chancel. First story windows are vertically aligned with the second. The windows, replaced in c. 1904, are wooden, eight-over-eight double-hung sash measuring approximately 3’-1” wide by 3’-9” high. Windows are trimmed on the exterior with simple wood fascia with butt joints and a sloped wood sill, replaced c. 1993.

The primary entrance is through double-leaf doors centered on the west façade. The vertical plank wood doors are joined by horizontal boards with diagonal steel bracing and hung by three large strap hinges. The door opening is finished in simple wood fascia trim and angled drip cap. The door and trim were replaced c. 1994. A single, plank wood door is centered on the east elevation and is hung by strap hinges and trimmed with fascia and angled drip cap.

Other modern details visible on the exterior include concrete stoop and steps to the west door, half-round galvanized steel gutters and downspouts, electrical switch boxes and meter on the south elevation, exterior safety lights, and telephone line mounts. A bronze plaque to the left of the west door describes the history of “Old Muskego Church.” Additional angled boards have been placed on the east wall to divert water from rotting logs.

The interior walls expose the original log structure. Other interior finishes were added after the building was moved in 1904. The floors are wood tongue-and-groove fir and the ceiling is grooved beadboard. A wide center aisle in the nave is flanked by seven rows of wooden pews. Shaped pew ends support the ends nearest the aisle, while the outside ends are affixed to the walls. Over the pews is a U-shaped gallery supported by six turned black walnut columns. The gallery is accessed by a steep open stairway at the northwest corner. The gallery floor is supported by wood joists and a wood plank parapet serves as a railing. Simple wood planks on saw horses form the seating in the gallery. The chancel is one step higher

than the nave and is dominated by a center high pulpit, altar table and railing. The pulpit is accessed by steep steps on the north side and is formed by a rounded half-barrel shape. A wood structure with turned posts forms a screen behind the altar table. A five-sided communion rail with turned spindles surrounds the altar. The movable baptismal font is made of turned wood. Wainscot boxes on each side of the chancel provided seating for the pastor and the “klokker,” who led congregational singing. Modern track lighting has been placed under the gallery floor and high on the side walls of the gallery.



Muskego Church, West Façade, Facing East



Muskego Church, North Elevation, Facing Southeast



Muskego Church, East Elevation, Facing West



Muskego Church, South Elevation, Facing Northwest



Muskego Church, Interior, Facing East



Muskego Church, Interior, Facing West

Timeline of Muskego Church

- 1843-1844 Lutheran Church at Muskego on “Indian Hill” built by Peter Jacobson with contributions of \$430 from Norway. Other sources name Halvor Nelson Lohner as builder, with Ole Haagason completing the shingle roof.
- 1845 March 13. Church is dedicated, making it the first Norwegian Lutheran Church in the United States. Other nearby churches completed soon after.
- 1845 Most descriptions of the original church are as follows: Hewn red oak logs, six inches thick and constructed using traditional Norwegian methods. The two-story structure with gable roof had a wider nave and narrower chancel; the chancel roof was lower. Three windows on the first and second stories of each side. The interior included a gallery balcony in the nave. Interior furnishings mostly made of walnut, including the six turned pillar supports for the gallery, the double-leaf front door, altar, baptismal font and pulpit. Pulpit was very high and accessed by stairs.
- 1851 Repairs are needed to the 6-year old church building. Work included possible drainage modifications around the perimeter; using gypsum or plaster on the walls (interior?) and the foundation to reduce drafts; mortaring beneath the front steps; install a brick chimney, stove and pipe; install grooved siding on the exterior walls; “make tight” the window moldings and corner boards; remove and repair the vaulted ceiling.
- 1870 Church trustees decided to sell the church at public auction and erect a new one in the same place.
- c. 1870 Building is sold to Hans Jacobson for \$150; he moves it to his farm, where he uses it for storage, pig sty, and other “diverse secular purposes.”
- c. 1897 Norwegian Lutheran Church leaders are alarmed by the present state of the historic log church and begin to consider restoration.
- 1900 The United Norwegian Lutheran Church acquires the building from H. Jacobson for \$100, out maneuvering members of the Norwegian Synod who intended to offer twice the price.
- c. 1900 The log church is dismantled, with pieces marked with chalk, and stored in a safe Wisconsin location, awaiting funding for its transportation and restoration.
- 1902 The assembly of the United Norwegian Lutheran Church votes to pay the cost to transport the dismantled church to the St. Anthony Park campus of the Lutheran Seminary in St. Paul, Minnesota.

- 1904 With a modestly successful fundraising campaign to raise the needed \$2,000 restoration costs, the building was packed up and shipped to St. Paul in August, and re-assembled in the autumn. Peter (or C. L.) Jacobson, a relative of the first builder, was charged with its reconstruction. The exterior log walls and one of the walnut pillars were the only original pieces. The remainder, including furniture, was reproduced.
- 1904 The structure was reconstructed in a park-like setting on hill of the seminary campus. Newly planted pine trees around the building we meant to replicate the original setting. Windows and doors were replaced, and most of the interior finishes were reconstructed, probably based on the recollections of former church members and pastors. Exterior clapboard sheathing on 2x4 furring was placed on the exterior walls to protect the original logs.
- 1905 The annual assembly of the United Lutheran Church meeting in Minneapolis visited the newly restored and dedicated “Muskego Church” in July, which stood alongside the newly completed \$100,000 seminary buildings.
- 1907 Pastor Gerhard Rasmussen, who was placed in charge of raising funds for the campaign, continued his plea for restoration funds two years after its completion. It is not known if the \$2,000 goal was ever reached, or if was simply absorbed into the United Church’s budget.
- 1910 The United Church’s board of trustees authorized a change of location of the Muskego Church, probably in order to erect a new structure. It is not known if this move occurred, or where the original location might have been.
- 1916 The original church records for the Muskego congregation are destroyed in a fire.
- 1917 The Pioneer Press reports the “First Norwegian Church in U.S. to be Re-opened” on the occasion of formation of the newly merged Norwegian Lutheran Church of America. It is not clear if the occasion is marking its initial opening after many years of restoration, the end of a period of closure, or the re-opening at a new location on the seminary campus.
- 1934 The Historic American Building Survey, a program of the National Park Service, records the building with measured drawings and photographs to archive at the Library of Congress.
- 1935 Old Muskego Church added to Minnesota State Historical Sites according to one source (not confirmed).
- 1954 King of Norway visits Muskego Church and contributes sterling with gold overlay communion ware.
- 1963 Article about the historic building published in *Minnesota History* (March 1963).
- 1963 Historic marker on seminary grounds is dedicated on October 11.

- c. 1971 After discovering that the “protective” clapboard siding was in fact causing the logs to rot, the sheathing was removed for the first time since 1904, exposing the exterior log walls.
- 1973 Fir trees around the site have grown to the extent that they almost hide the front of the building.
- 1975 Muskego Church is listed in the National Register of Historic Places; King Olav V of Norway visits.
- 1978 Muskego Church is designated as a historic site by the St. Paul Heritage Preservation Commission.
- 1988 Official name in National Register listing changed to “Norway Lutheran Church (Muskego).”
- 1993 Gutters and downspouts added to direct water away from the log walls; nearby trees were trimmed to prevent them from rubbing against the building.
- 1993 Seminary undertakes major restoration project with volunteer labor and participation of Charles Nelson of the Minnesota Historical Society. Projects included removing old mortar and replacing new chinking with a formula that included Portland cement and latex grout in the mortar mix of hydrated lime and washed sand.
- c. 1993 Wood stove and pipe removed
- 1994 Restoration work continued by re-facing rotted logs and using epoxy consolidation inside rotted logs. Using aged logs salvaged from an 1862 fort, cut to the right size, logs were cut in half the long way and rodded onto the face of the existing prepared rotted logs with a fiberglass reinforcing rod. Doors replaced with walnut slab door. Drip cap placed over door.
- 2000 The altar painting of the Last Supper, in tatters, was removed and replaced with a Hardanger work done by members of the Norway Church, Muskego’s descendent church.
- c. 2012 Minor chinking repairs using Vulkem 116, a polyurethane sealant

Historical Discussion

Period of Significance and Treatment Approach

The period of significance describes the time period during which a historic property is associated with its historical events. Once established, it can help guide the preservation process, with the idea that inappropriate changes made after the period of significance should be removed, and features in place during the period of significance could or should be restored if there is sufficient documentation. While it is not the role of this study to evaluate or re-assess the period of significance for the Muskego Church, some discussion on the subject is warranted in order to inform preservation decisions.

The traditional period of significance for the Muskego Church would be its associated with its use as a church in its original location, 1844-1870. A strict adherence to this period using a restoration approach would guide the treatment in certain ways. For instance, the bead board ceiling was likely added in 1904, and would not be appropriate to the 1844-1870 period. Similarly, there appears to be strong evidence that the exterior was sheathed with grooved siding in 1850. Using an early period of significance and a restoration standard would suggest restoring these elements to their 1870 appearance.

A broader understanding of the period of significance would encompass the period of the building's 1904 reconstruction on its new site. Historical arguments can be made that the early twentieth century was a time of great interest in Norwegian nationality and heritage among Norwegian-Americans, and that the instigation for acquiring and moving the Muskego Church was an important manifestation of this nationalistic sentiment. It is not the purpose of this investigation to explore that discussion. Instead, the assumption implicit in the National Register nomination that the move and restoration of the building 110 years ago is an important part of the history of this property will be observed, and the treatments made at that time will be honored and themselves restored in this study's recommendations to the extent feasible.

With this in mind, we recommend the *Preservation* as the appropriate treatment for this historic property according to Secretary of the Interior's Standards. Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. The treatment approach focuses on protecting and stabilizing historic materials, excludes new exterior additions, but allows for sensitive upgrading of mechanical, electrical and plumbing systems.¹ Using this treatment, the Muskego Church's layered history from its Wisconsin origins to its St. Paul reconstruction can be preserved and interpreted.

Stove and Stovepipe

According to the congregational record, a chimney and stovepipe were added to the building in 1851. Although the early sketch of the building on its original site while in use as a barn does not show a chimney (Figure 1), another sketch, probably dating from around the same period, shows the church in its "original" state, or more likely in its envisioned "restored" state (Figure 2). In that image, a brick chimney with a pyramidal cap protrudes from the ridge of the nave, near where it meets with the chancel. It is not known if this sketch is an idyllic image of a proposed restoration or a rendering of the actual building this is more or less accurate.

¹ U.S. Department of the Interior, National Park Service, Technical Preservation Services, "The Standards: Preservation as a Treatment," <http://www.nps.gov/tps/standards/four-treatments/treatment-preservation.htm>.

It seems likely when the church was converted to use as a farm building, its original stove and stovepipe were removed. There is no record that these items were part of the items moved in 1904. A wood stove with a stovepipe mounted to the underside of the U-shaped gallery was likely purchased and installed as part of the 1904 restoration. The unusual configuration appear to be based on the recollections of Rev. H. A. Stub, who spoke in 1898 about a stove being installed for the first time in 1849, with pipes that “encircle the church in the choir loft and radiate the necessary heat.” The earliest known interior photograph showing the stove dates from the 1934 HABS documentation and suggests this configuration (Figure 3). Newspaper and other accounts from the 1940s began reporting descriptions of the “original” wood stove in the building. That the stove is the same one originally associated with the church is unlikely, and the reports to that effect may be attributable to the 1848 patent date on the stove. That imprint date should not be confused with the date of its manufacture or installation.

Curiously, no photographs show any exterior chimney or exhaust for the stove. The 1934 HABS exterior photographs clearly show both sides of the gabled roof without a chimney. Interior photos of the same date, and later, show an internal stovepipe leading up to the beadboard ceiling but not through it. It appears clear that at least by the mid-1930s, the stove was intended only for show, and not for use. It is likely the stove was never functional since the 1904 reconstruction. An interior photograph dated 1962 shows the vertical extension of the stovepipe leading up to the ceiling removed (Figure 4). This correlates with the 1963 article in *Minnesota History*, which reported “the long stovepipe stretching along the entire underside of the gallery is no longer in use, but it stands as a reminder of the method once used to circulate heat through the church.”²

The stove and pipe are no longer in the building. Its removal was undertaken during the 1993-94 restoration based on the understanding that the stove was not original.

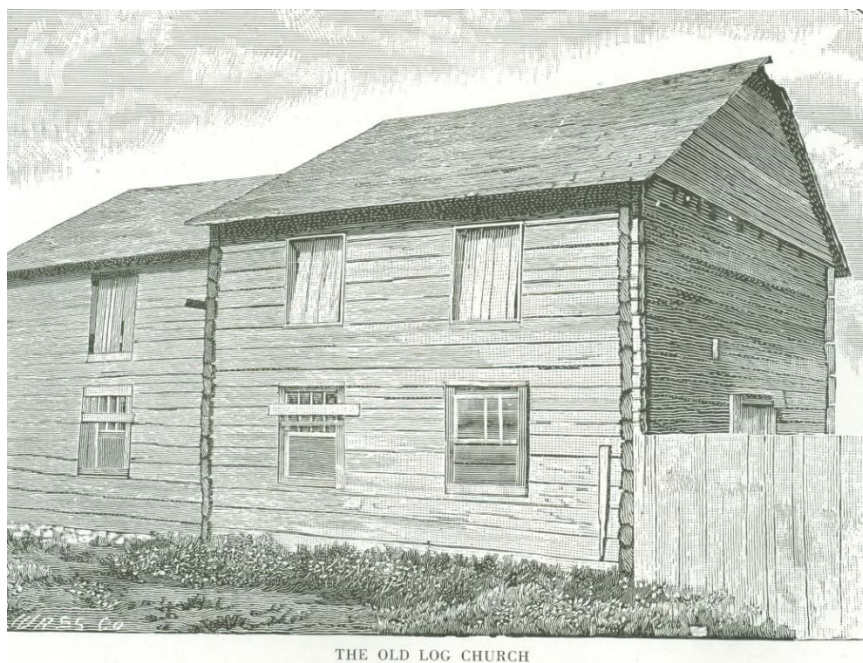


Figure 1. Sketch of Muskego Church as a Barn, c. 1900 (Luther Seminary Archives)

² “Muskego Church” in *Minnesota History* (Minnesota Historical Society: St. Paul, Minnesota, March 1963).

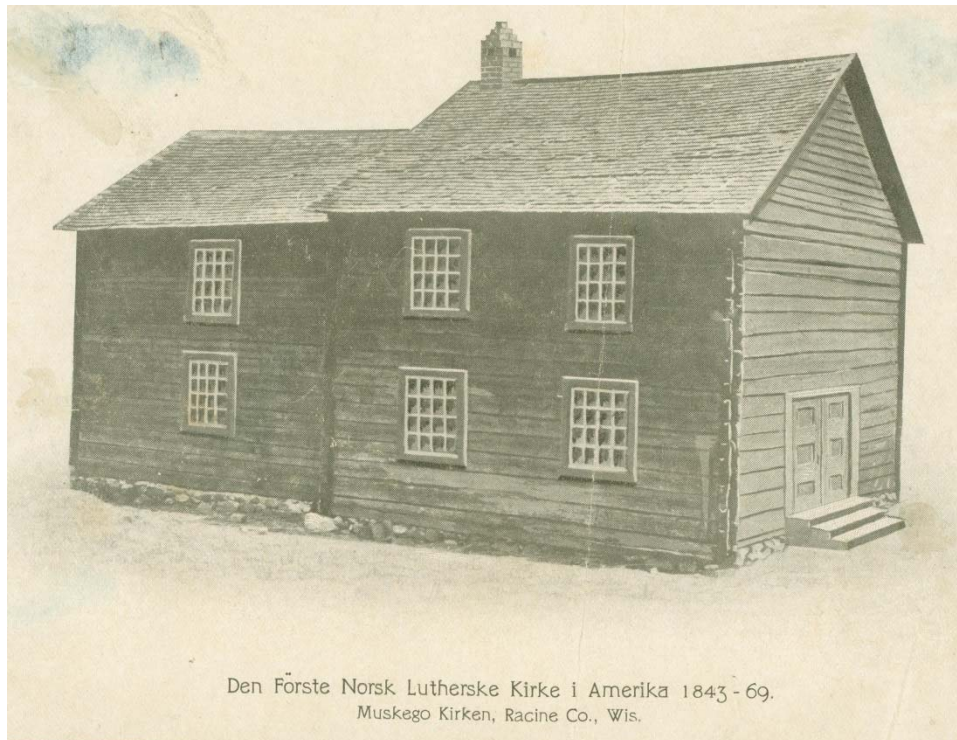


Figure 2. Sketch of Muskego Church as a Church, with chimney, c. 1904 (Luther Seminary Archives)



Figure 3. Interior View Dated 1934. Note stovepipe in upper left corner (HABS, Library of Congress).



Figure 4. Interior photograph dated 1962. Note terminated stovepipe (Minnesota Historical Society and Luther Seminary Archives)

Exterior Siding

The walls of the existing building feature the exposed log timbers, which are used as both as structural support and enclosure. From 1904 to about 1971, the exterior walls were furred with 2" x 4" studs and covered with the clapboards and the corner log crowns boxed in to preserve the exterior log walls. The interior walls were never clad with plaster or other material since its relocation to the seminary site. After it was discovered that the lap siding, originally believed to be put in place to "protect" the original logs, was in fact causing them to rot, the siding and furring were removed in about 1971.

While the removal of the exterior siding was believed to have returned the building to its "original" appearance and design dating to its use as a church between 1840 and 1870, several pieces of evidence suggest that the logs were sheathed in siding while at its original location. Of principal evidence is the Norway Church's book of minutes with entries dating from 1851. By that time, a number of repairs to the church were necessary. The congregation arranged for the purchase of 600 feet of boards, lime, 300 bricks, and 2,300 feet of siding. The Trustees contracted with Halvor Olsen Skare to do specific repair work. One item was "to cover the entire church all around on the walls and the front part from the foundation to the roof with grooved siding." This description – from foundation to the roof – suggests an exterior application. Other items of interest include the reference to a "vaulted ceiling," and the instruction "to use gypsum or plaster the walls with lime well-worked for this purpose, as well as to use gypsum or plaster the foundation so well that neither water nor air can force in through them." A brick chimney was also installed then.

In addition to this documentary evidence, physical evidence of exterior sheathing remains on the building. Several square nails can be found within the log walls (Figure 5). While the nails could be remnants of the c. 1904 sheathing after the move, it would be very unlikely to see this type of nail in the early twentieth century. Square nails of this kind are more likely to be used in the 1850s.

No photographs of the building from its period of use as a church (1844-1870) have been found. The earliest images appear to date from the time it was moved to Luther Seminary. By this time, it had been used as a barn from some 30 years. Based on the drawing from this period, no siding was applied to the log exterior (see Figure 1). Another drawing, probably created for the purposes raising funds for the restoration, shows the building as it was believed to have looked as a church (see Figure 2), with exposed exterior logs and no siding. The dates at the bottom commemorate its period of use as a church, and clearly indicate it was produced after that period. Its similarity to the image as a barn suggests it was inspired by the previous image and embellished to offer an “as restored” version. At any rate, these images cannot be relied upon to suggest an entirely accurate portrayal of the building before 1870.

While specific evidence for the existence of exterior cladding on the Muskego Church is of greatest relevance, it is important to note that many eighteenth and nineteenth century log houses east of the Mississippi were covered with exterior cladding for both aesthetic and practical reasons, either as soon as the building was completed or sometime later.³ Based on the archival and physical evidence, this also appears to be the case with the Muskego Church. The original siding was likely removed in c. 1870 when it was dismantled the first time, to be used as a barn.



Figure 5. One of several square nails remaining embedded in the log structure.

Interior Features

When the Muskego congregation outgrew their original log church and decided to build a new structure in 1869, they sold the old building to a local farmer, Hans Jacobson for \$150. Jacobson moved it to his farm and used it as a barn. At least one source reports that he sold the walnut pews and pulpit to a Milwaukee furniture factory. Presumably, other interior features were also removed and similarly disposed of.

³ Bruce D. Bomberger, *Preservation Brief 26: The Preservation and Repair of Historic Log Buildings*, U.S. Department of the Interior, National Park Service (Government Printing Office, Washington, D.C. 1991), 6.

In 1904, the logs of the Muskego Church were disassembled, moved and reconstructed on the Luther Seminary campus. Indeed, the surviving logs are the only parts of the building that date from its earliest period. In St. Paul, it was placed on a new foundation, and equipped with a new roof structure, ceiling, flooring and joists, windows and doors. According to one 1968 source, a manuscript by American Lutheran Church Assistant Archivist Ernest W. Sihler, one of the interior walnut pillars was also salvaged, which became the model for the reproduction for the other five.

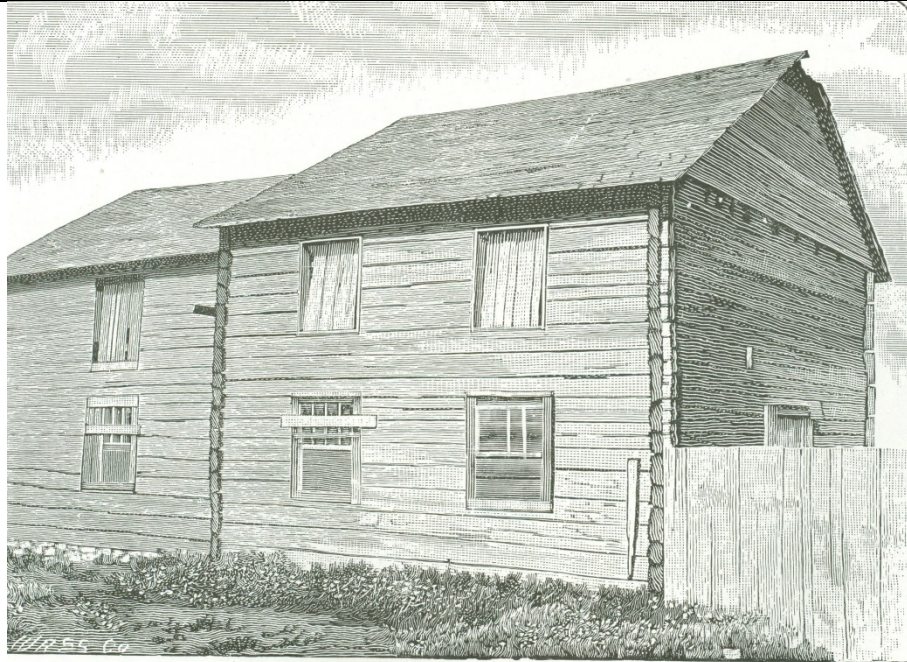
The interior configuration appears to be largely based on the recollections of Rev. H. A. Stub, who described the building in his address on the occasion of the building's 50th anniversary in 1898. This would be over 40 years since Stub had been pastor at the church, and after nearly 30 years of its use as a barn. As Luther Seminary Archivist, Paul Daniels, has noted, these distant memories forming the basis of many of the restoration decisions calls into question the accuracy of the documentation. Nevertheless, it is a representation of an understanding of the building's history at the time of its restoration.

Other early recollections describe the interior logs as being "dressed perfectly smooth and then fitted so close together that no mortar was used between them," indicating that no plaster or other interior sheathing was applied. While it is unclear what the plaster and gypsum in the 1851 repair requisition was to be used for – perhaps the foundation, chimney or chinking – there is no physical evidence of furring or plaster applied to the interior log walls.

Detailed etching of exterior from its relocated site when used as a barn.
c. 1903
Luther Seminary Archives

This image may be the one used to raise funds for the relocation to St. Paul

Note missing windows and log stabilization effort.



THE OLD LOG CHURCH

Postcard drawing of exterior.
c. 1904
Luther Seminary Archives

This image may be the one used to raise funds for the relocation to St. Paul

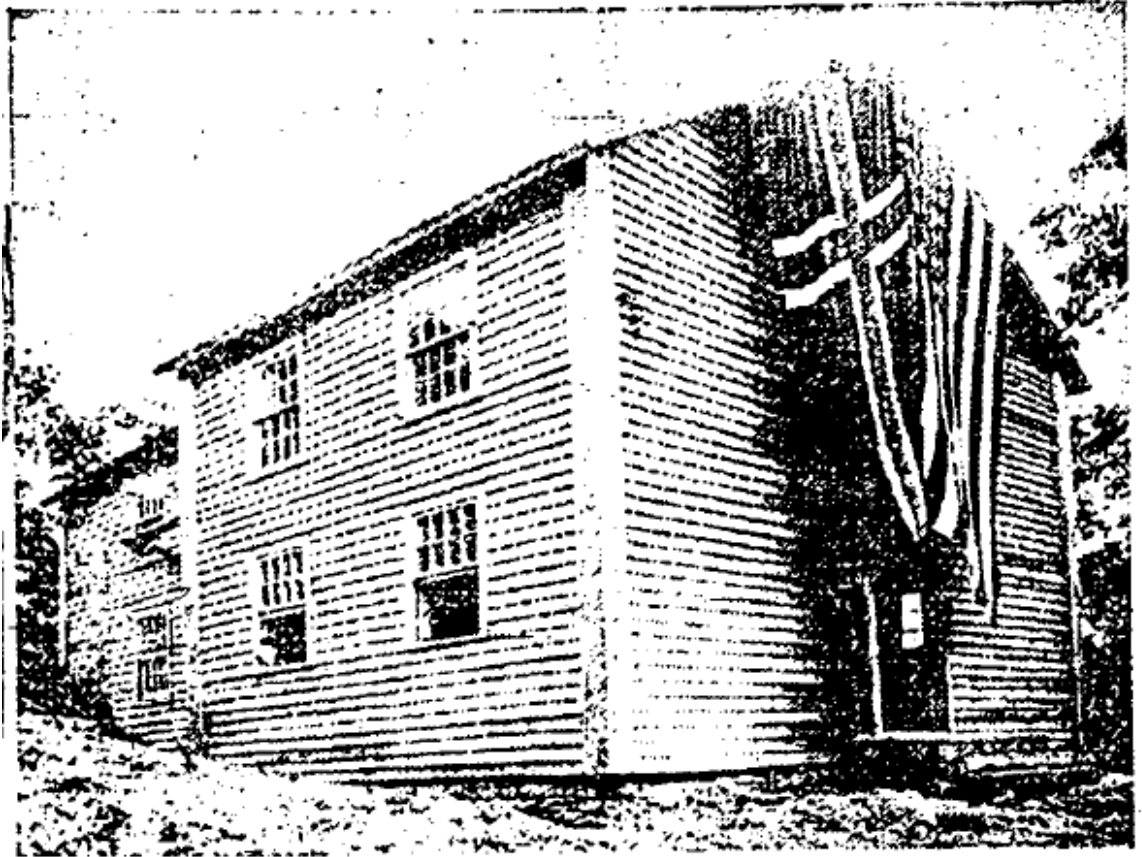
Note brick chimney, three-paneled doors, and window styles.



Den Förste Norsk Lutherske Kirke i Amerika 1843 - 69.
Muskego Kirken, Racine Co., Wis.

Exterior view to
southeast
June 1905
Minneapolis Tribune,
June 25, 1905 p. 11

From newspaper article
on the occasion of
annual convention



Exterior view to
northeast
c. 1915
MHS MR2.9 SP5.1 p320

Note two steps to
entry, three panel
doors. Mature tree(s)
replaced by 1934.



Exterior
1934
HABS documentation
View northeast

Note presence of
young trees, which now
crowd the building.
Clapboard siding
removed in 1970s.



Exterior
1934
HABS documentation
View southeast

House located to the
rear is not extant.
Young trees planted
now obscure the
church building.



Exterior View to the
south
May 1966
By EDB
MHS MR2.0 SP5.1 p145



Exterior View to the
southwest
May 1966
By EDB
MHS MR2.0 SP5.1 p145



Exterior View facing
southwest
May 1966
By EDB
MHS MR2.0 SP5.1 p145



Exterior view facing
east
1969-70
MHS MR2.9 SP5.1 p414

Concrete steps and
pipe railing



Exterior view facing
northwest
1974
MHS MR2.9 SP5.1 p376



Exterior view facing
south
1978
St. Paul Heritage
Preservation
Commission files



Exterior view
Taken between 1974
and 1994
Luther Seminary
Archives

Before door
replacement and after
exterior sheathing
removed



Exterior view
1982
Luther Seminary
Archives.



Exterior view
Taken between 1974
and 1994
Luther Seminary
Archives



Exterior view
Taken between 1974
and 1994
Luther Seminary
Archives



Exterior view
Taken between 1974
and 1994
Luther Seminary
Archives



Exterior view of
window and corner.
Undated (after 1974).
Luther Seminary
Archives.

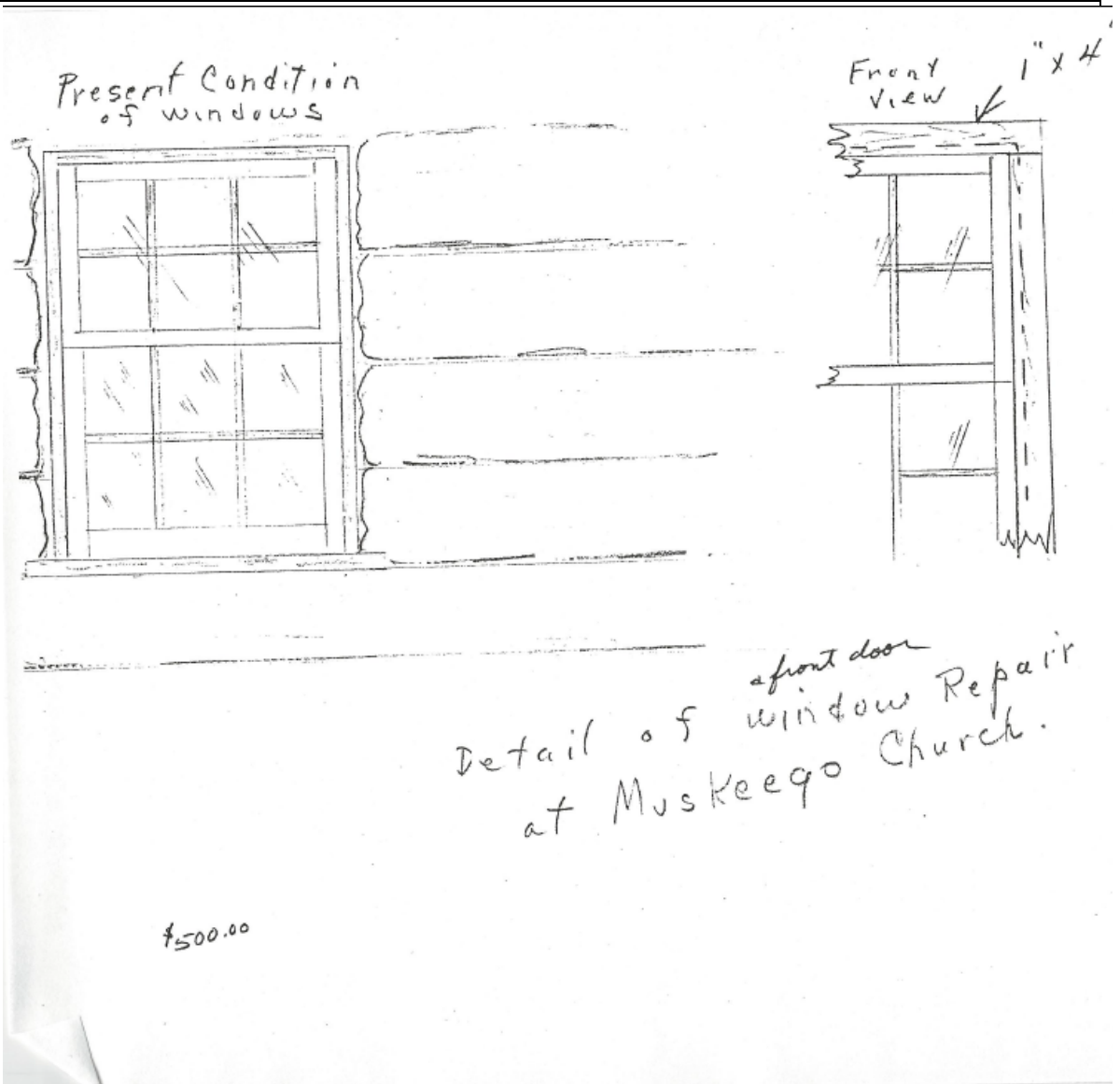
Note chinking patches.



Exterior repairs.
1994
Luther Seminary
Archives.



Sketch of proposed
window repairs.
c. 1994
Luther Seminary
Archives.



Exterior repairs,
removing rotted log on
the south side of the
chancel wall.
1994
Luther Seminary
Archives.



Exterior repairs, using
log fill.
1994
Luther Seminary
Archives.



Exterior corner
showing repair on
northeast corner.
1994
Luther Seminary
Archives.



Exterior repairs on
inside corner of north
elevation.
1994
Luther Seminary
Archives



Exterior repairs.
1994
Luther Seminar
Archives.



Exterior repairs.
1994
Luther Seminary
Archives.



Exterior façade with
Garrison Keillor.
1995
Luther Seminary
Archives.

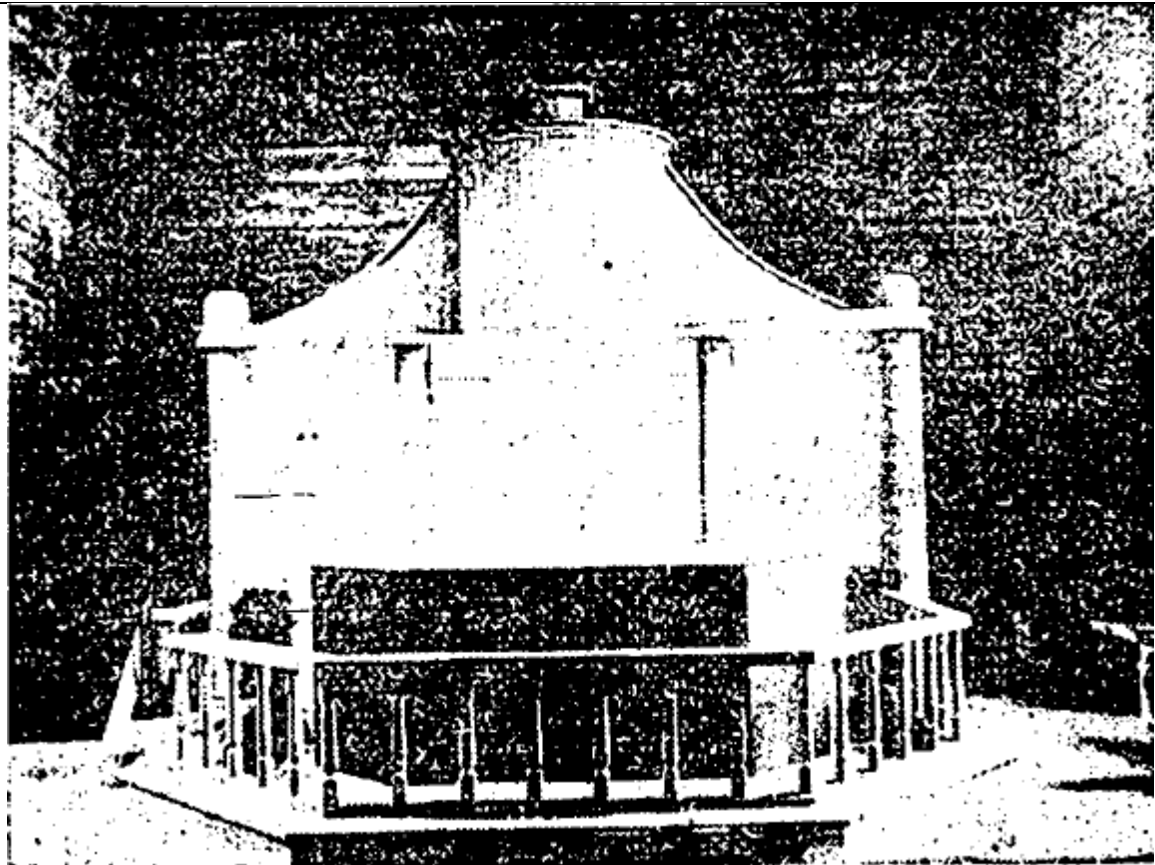


Exterior repairs.
1995
Luther Seminary
Archives.



Interior, chancel
June 1905
Minneapolis Tribune,
June 25, 1905 p. 11

From newspaper article
on the occasion of
annual convention



Interior, chancel
1934
HABS documentation
View of chancel area

Note use of fabric
covering on altar table.
Artwork has been
removed. Stovepipe
seen in upper left.



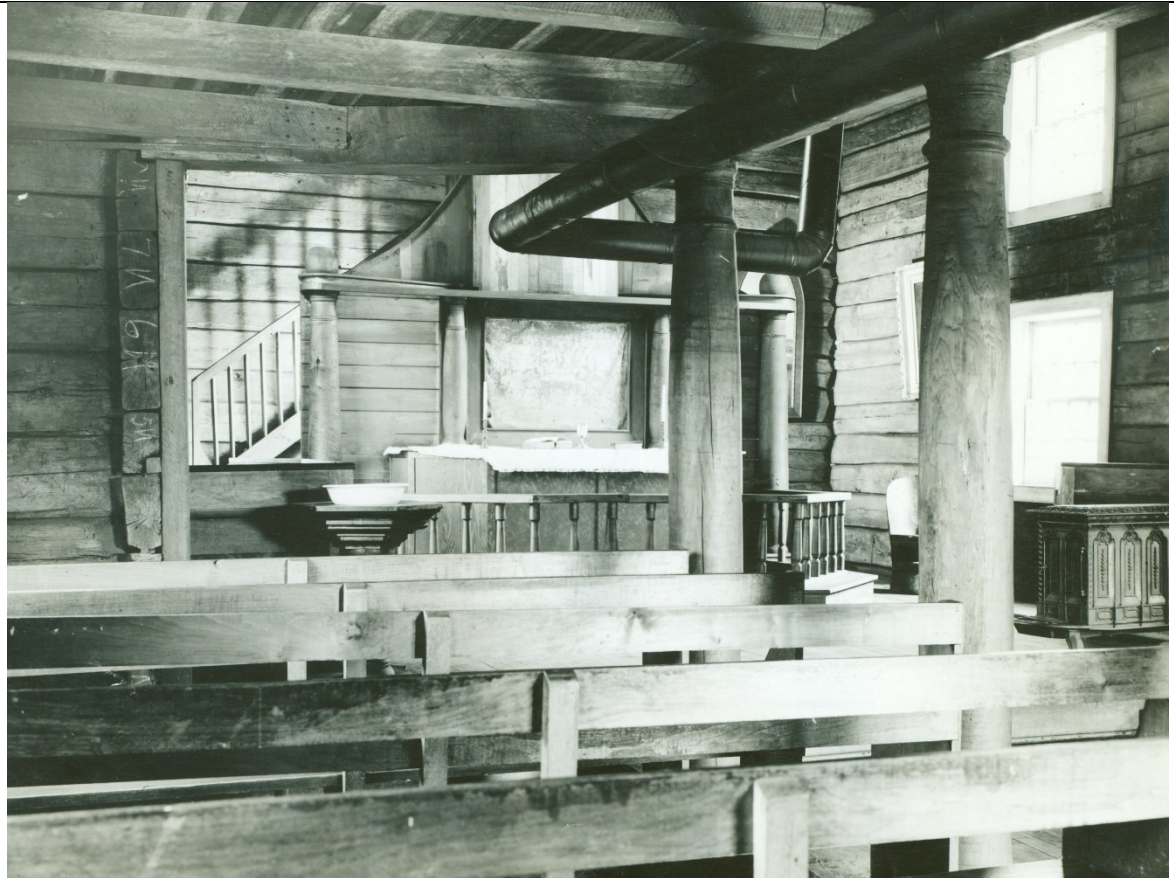
Chancel Area
June 8, 1938
MHS, MR2.9 SP5.1
p205

Note wood sided
(plywood) altar table.
Presence of wood
stove and pipe.



Interior view of nave to
chancel.
1943
Luther Seminary
Archives.

Note chalk marks on
log ends.



Interior view of chancel area.
1930s
Luther Seminary
Archives.



Interior view to chancel
June 1959
Photo by Mattison,
National Park Service
MHS



View from pulpit
toward rear
1962
Photo by EDB
MHS, MNR2.9 SP5.1
r178; Luther Seminary
Archives

Artwork has since been
removed. Note
presence of stove and
stovepipe; vertical
stovepipe terminus is
missing (ceiling
patched?).



Interior showing wood
stove
1962
Photo by EDB
MHS MR2.9 SP5.1 r177



Interior from altar
toward rear
1962
Photo by EDB
MHS, MR2.9 SP5.1 r176

Note presence of pump
organ, woodstove,
stovepipe and artwork
in gallery

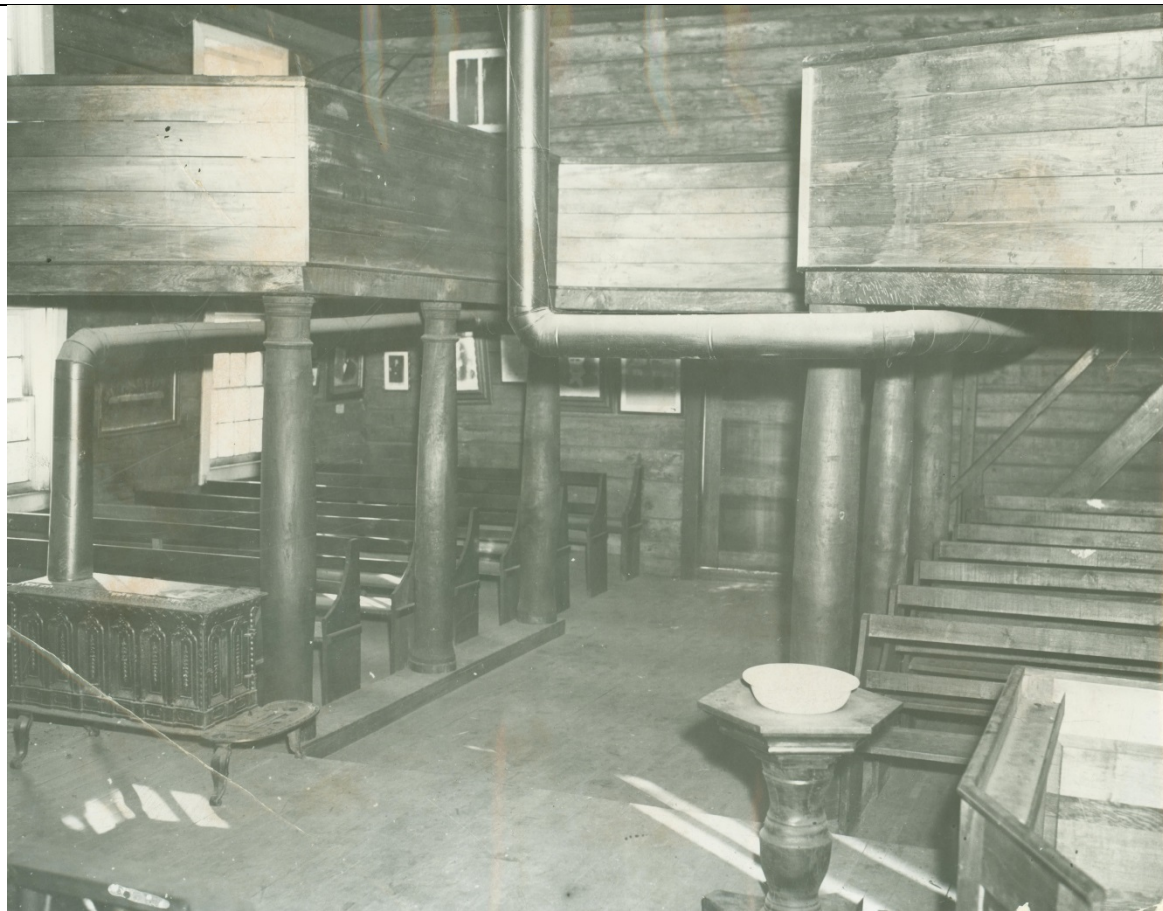


Interior view to chancel
from under gallery
1964
MHS

Note stovepipe
overhead, woodstove,
pump organ



Interior view of gallery
with baptismal font
and stove piping.
Undated.
Luther Seminary
Archives.



Interior view of chancel
area.
Undated.
Luther Seminary
Archives.



Postcard view of
chancel area.
Undated
Luther Seminary
Archives.



Interior view of nave
and pews.
Undated.
Luther Seminary
Archives.



Interior view of steps
leading to pulpit.
Undated.
Luther Seminary
Archives.



Interior view of
benches in gallery.
Undated.
Luther Seminary
Archives.



Site Inspection Visit & Existing Condition Report
July 16, 2014
Norway Lutheran Church (Muskego) Historic Structures Report
Luther Seminary
2375 Como Ave.
St. Paul, Minnesota 55108

Participants: Robert Claybaugh, CPAi
Will Stark, Stark Preservation Planning
Jay Schmidt, Barn Restoration Specialists

- **HABS Drawings:**
 1. The building was documented by the Historic American Building Survey (HASBS) in 1934 as the Log Chapel, St. Paul, Minn. There are three sheets of drawings that include plans, elevations, sections and details. These are included in the report and were very valuable during our site visit.
 2. The building was covered on the exterior with wood clapboard at the time of the HABS survey.
- **Site Conditions:**
 1. There are still some of the pine trees that need trimming to get overhanging branches away from the building.
 2. Two pines southwest of the building appear to be mostly without green needles and probably need to be removed. Someone with more knowledge of the pines should look at them in order to make a decision.
- **Utilities:**
 1. The church has overhead electrical service to a box and meter on the south wall. Refer to photo on A2.
 2. There is no gas, sewer or water service to the church.
- **Building Systems:**
 1. The building is not heated or air-conditioned. There are no plans to heat or cool the building. The building is only used during the warm time of the year.
 2. There is lighting in the building in discrete locations so as not to detract from the historic character of the space.
 3. There are electrical outlets in the building.
- **Stone Foundation:**
 1. The stone foundation is in good condition and does not show signs of settlement. The depth of the foundation is unknown.
 2. There is deterioration of the mortar and there have been some repairs with what

appears to be a Portland cement mortar.

3. Samples were taken of the existing mortar and sent to Arbogast Mortar Analysis for laboratory testing. Refer to photo on A2 for location of mortar sample. The mortar is in fair condition and appears to be a lime/cement/sand mixture. The laboratory analysis confirmed this.

- **Exterior Log Walls:**

- Jay Schmidt examined the logs on all exterior bearing walls to determine condition and restoration scope. The results of this examination are shown on the elevation drawings.
- **General Log Observations:**
 - Refer to photos on A2 and A3 for log conditions.
 - All of the original logs have numbers scratched into the interior surface.
 - We found a number of log ends that are missing or severely deteriorated that will need replacement. Refer to photo on A2 for typical condition.
 - The intended approach to restoration of rotted logs is to preserve the interior surface if possible and install new exterior log facing.
 - In some cases, epoxy injection of the rotted portions will work for the repair.
 - It is our opinion that the log deterioration is the result of moisture penetration over time due to failed chinking and cracks in the logs.
 - Jay has sources of period logs that would match the logs of this building.
 - The exterior metal straps at the corners are probably not needed. See photo for example.
- **Chinking Observations:**
 - The chinking was replaced in 1993 with a mortar mix developed by Charles Nelson of MHS. The mix was composed of Portland cement, hydrated lime latex grout and sand. We have not been able to confirm the mix proportions.
 - Some log repair was done in the 1990s with a mixture of sawdust and epoxy. Refer to elevations on A3 and photo on A2 for location.
 - Some chinking repair was done in the last few years on an emergency basis with a caulking. Paul Daniels confirmed that the caulking used was Vulkem 116 polyurethane sealant.
 - The chinking mortar is failing in many areas, particularly on the east façade.

- **Roofing:**

- The existing wood shingle roof is in poor condition and has had some patches in the recent past. The shingles are probably 30 years old.
- The shingles are laid over building felts on spaced wood sheathing boards of varying widths.

- There appears to be no metal flashing where the chancel roof meets the nave roof gable. The chancel roof sheathing boards run through the nave roof gable. Refer to photo on A2.
- Galvanized 5" half round gutters and 3" diameter corrugated downspouts were installed in 1995. These are in good condition and can be reused. The brackets were installed on top of the shingles rather than under them.
- **Roof Structure:**
 - Our team was able to inspect the roof structure from the attic through the access hatch above the balcony.
 - The roof rafters are 4"x6" with 1x4 and 1x6 nailed to each side. There is a sag in the nave roof rafters and these may have been installed to straighten and strengthen the rafters. The sag is very visible from the east side. The rafters are in good condition. We saw only one small crack at a knot in one rafter.
 - The nave roof rafters are spaced at 41" centers.
 - The chancel roof rafters are spaced at between 41" and 47" centers.
 - There is no ridge beam and the rafters rest on a 7 1/2" H x 10" W wood sill at the eave.
 - The gable boards are 7/8" x 11 1/2" clapboards laid with 10" exposure on 2x4 wood studs. There is no sheathing or interior covering on the studs.
 - There is an area where the sill beam is rotted at the northeast corner of the nave.
- **Ceiling Structure:**
 - Nave Ceiling: Wood beaded board on 2x6 wood rafters at 39" on center running east to west. The ceiling has a sag.
 - Chancel Ceiling: Wood beaded board 2x6 wood rafters laid flat at 48" on center running north to south. The ceiling has a sag.
- **Floor Structure:**
 - We were able to view the floor structure from the floor hatch under the balcony stairs. The clearance of about 10" below the floor joist did not allow us access to the crawl space.
 - The floor is framed with 1 7/8" x 9 1/2" wood joists at 21" on center running north to south.
 - There is a 6x6 wood beam down the center of the building running east to west supported on stones along its length. These appear to be about 6' on center.
 - The crawl space is dry compacted earth and the joists appear to be straight and in good condition.
 - The floor is single layer 7/8" x 3 1/2" tongue and groove wood flooring.
 - The floor appears to be level and is stiff under foot.
- **Windows:**

- Refer to A1 for photos and details of window conditions.
 - The windows are all the same size and we would assume were installed when the church was reconstructed in 1904.
 - The windows are 8/8 light double hung wood sash with 8" x 10" single pane putty glazed lights. There are no weather stripping or counter weights. The only hardware is a sash lock. The lower level sash have been screwed shut.
 - The wood frames are generally in good condition except for weathering and missing paint.
 - The sash are generally in good condition except for weathering and missing paint. The glazing putty condition varies from poor to good. Some sash appear to have had restoration work done in the recent past.
 - The perimeter frame caulking is general missing or in poor condition.
 - There is not a weather cap at the window head.
- **Doors:**
 - The two exterior doors were replaced in 1994 and wood drip caps were installed above each door.
 - The doors are constructed of 2 layers of 7/8" wood boards with an oil finish. The doors are hung on 3 metal strap hinges and set in a wood frame.
 - The doors and frames are in good condition.
 - The main door is a pair of 35" w x 78 1/2" H panels with a deadbolt lock.
 - The rear door is a single 37" W x 68" H panel with a lockable slide bolt on the inside.
- **Interior Finishes:**
 - **Floor:** The wood floors have a natural finish that is in good condition.
 - **Walls:** The interior face of the logs is the interior of the building. These have a weathered patina that looks good and should be maintained.
 - **Ceiling:** The wood ceilings have a natural finish that is in good condition.

1803 Pineacre Avenue
Davenport, Iowa 52803
July 29, 2014

Mr. Robert J. Claybaugh, AIA, President
Claybaugh Preservation Architecture, Inc.
361 Government Street
Taylors Falls, Minnesota 55084

Dear Mr. Claybaugh:

Enclosed, please find the analyses, test sheets, and an invoice for the mortar sample from the Muskego Church at Luther Seminary in Saint Paul, Minnesota, which arrived this past Friday. Under separate cover I am sending the sand and fines. I trust that you will find all to be in order.

The sample gave clear indications of being made of natural cement, lime, and very fine sand. Care should be taken to match the sand because of its fine consistency. The sample was excellent in all aspects and I believe the results are accurate.

If you have any questions or comments please feel free to contact me.

Sincerely,

David Arbogast

Enclosures

Mortar Analysis
Muskego Church
Luther Seminary
Saint Paul, Minnesota
July 29, 2014



On Friday, July 25, 2014, David Arbogast, architectural conservator, of Davenport, Iowa, received a mortar sample from the Robert J. Claybaugh, AIA, President of Claybaugh Preservation Architecture Inc. of Taylors Falls, Minnesota. The sample was collected from the Muskego Church on the campus of Luther Seminary in Saint Paul, Minnesota, and was submitted in an effort to determine its original formula.

The analyses were begun on Monday, July 28, utilizing the standard testing procedure developed by E. Blaine Cliver, Regional Historical Architect of the North Atlantic Region of the National Park Service. This relatively simple procedure dissolves the lime and/or cement content of the mortar using a 20% solution of hydrochloric acid. The carbon dioxide released as a result of the reaction displaces water, which is then measured and used to calculate the soluble content of the mortar. The insoluble fines and sand remaining from the reaction are factored into the equation resulting in a final result. In the case of cement samples, the remaining fines are used to calculate the cement content of the mortar. The remaining sand is then carefully sieved and graded by grain size to provide a means of identification of the various sand types encountered.

The sample was collected from the stone masonry. It was dull brown in color with visible sand and hard in its consistency. It had a fast and bubbly reaction followed by a prolonged reaction. The hardness and the reaction are typical of cement samples. However, the very large water displacement is typical of lime mortar and the very rapid filtering time is also typical of lime mortar. The color of the mortar is not typical of Portland cement mortar, but is typical of natural cement mortar, although it is possible that the mortar was tinted. If it was tinted the colorant would appear in the fines, which it did not. Thus, it appears that the mortar was composed of sand, lime, and natural cement. The sand sieve analysis revealed very fine sand of which virtually all easily passed the two largest sieves. Over 23% passed all of the sieves and nearly half was trapped in the finest sieve.

Mortar/Plaster/Stucco Analysis Test Sheet

Sample No. 1
 Building: Muskego Church, Luther Seminary, Saint Paul, Minnesota
 Location: Stone masonry
 Sample Description: Dull brown, hard, visible sand, fast and bubbly reaction followed by prolonged reaction, very rapid filtering

Test No. 1 – Soluble Fraction

Data:

1. <u>185.6</u> Container A weight	8. <u>no</u> Hair or fiber <u> </u> type
2. <u>205.6</u> Container A and sample	9. <u>3.3</u> Fines and paper weight
3. <u>765.05</u> Barometric pressure	10. <u>2.7</u> Filter paper weight
4. <u>23</u> Temperature	11. <u>198.0</u> Sand and Container A weight
5. <u>1.07</u> Liters of water displaced	12. <u>10.0</u> cc. of sand
6. <u>yellow-green</u> Filtrate color	13. <u>17.5</u> Weight of graduated cylinder and sand
7. <u>dull tan</u> Fines color	14. <u>5.1</u> Weight of graduated cylinder

Computations:

15. 20.0 Starting weight of sample: No. 2 – No. 1
 16. 0.6 Weight of fines: No. 9 – No. 10
 17. 12.4 Weight of sand: No. 11 – No. 1
 18. 0.80645161 Sand density: No. 12 divided by (No. 13 – No. 14)
 19. 7.0 Weight of soluble content: No. 15 – (No. 16 + No. 17)
 20. 0.0442249 Mols. Of CO₂: No. 5 x No. 3. x 0.016 divided by (No. 4 + 273.16 C.)
 21. 4.42 Gram weight of CaCO₃: 100 x No. 20
 22. 2.58 Gram weight of Ca(OH)₂: No. 19 – No. 21
 23. 0.0348312 Mols. of Ca(OH)₂: No. 22 divided by 74
 24. 5.85 Gram total weight of Ca(OH)₂: 74 x (No. 20 + No. 23)
 25. 1.95 Gram weight CO₂: No. 20 x 44
 26. 3.48 Gram weight total possible CO₂: 44 x (No. 20 + No. 23)
 27. 56.03 %CO₂ gain: No. 25 divided by No. 26

Conclusions:

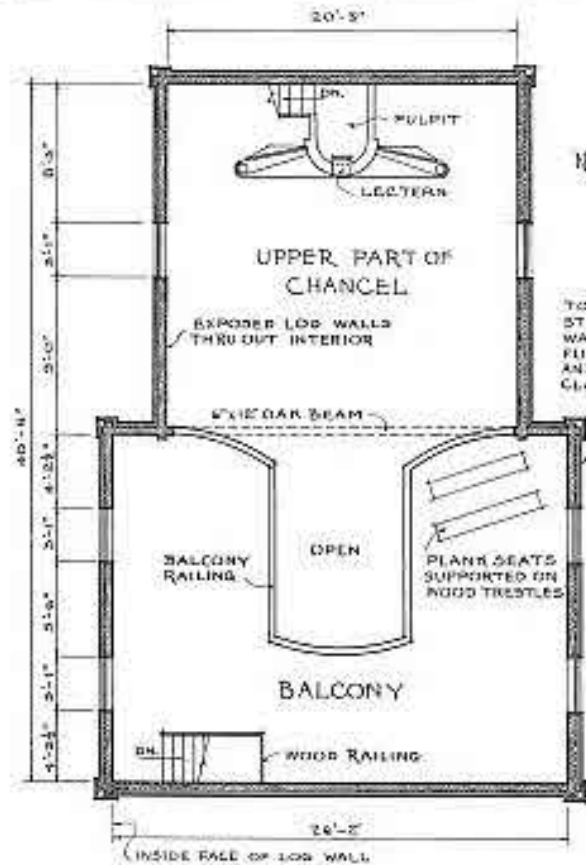
28. 18.05 Gram weight of sample: No. 15 – No. 25
 29. 3.32 Fine parts/volume: No. 16 divided by No. 28
 30. 55.40 Sand parts/volume: (No. 17 divided by No. 28) x No. 18
 31. 35.65 Lime parts/volume: (No. 24 divided by No. 28) x 1.1

Cement (if present)

32. Portland cement parts/volume: (No. 16 divided by No. 28) x 0.78
 33. 2.86 Natural cement parts/volume: (No. 16 divided by No. 28) x 0.86
 34. Lime with cement parts/volume: (No. 16 x 0.2) divided by No. 28 x 1.1

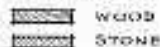
Test No. 2 – Sand Sieve Analysis

Sieve	Sieve w/ sand weight	Sieve weight	Sand weight	Sand ratio
No. 4	<u>158.4</u>	<u>158.4</u>	<u>0.0</u>	<u>0.00</u>
No. 8	<u>141.1</u>	<u>140.2</u>	<u>0.9</u>	<u>0.54</u>
No. 16	<u>141.6</u>	<u>132.7</u>	<u>8.9</u>	<u>5.34</u>
No. 30	<u>168.5</u>	<u>123.6</u>	<u>35.9</u>	<u>21.52</u>
No. 50	<u>196.3</u>	<u>113.9</u>	<u>82.4</u>	<u>49.40</u>
Base	<u>117.3</u>	<u>78.6</u>	<u>38.7</u>	<u>23.20</u>



BALCONY PLAN.

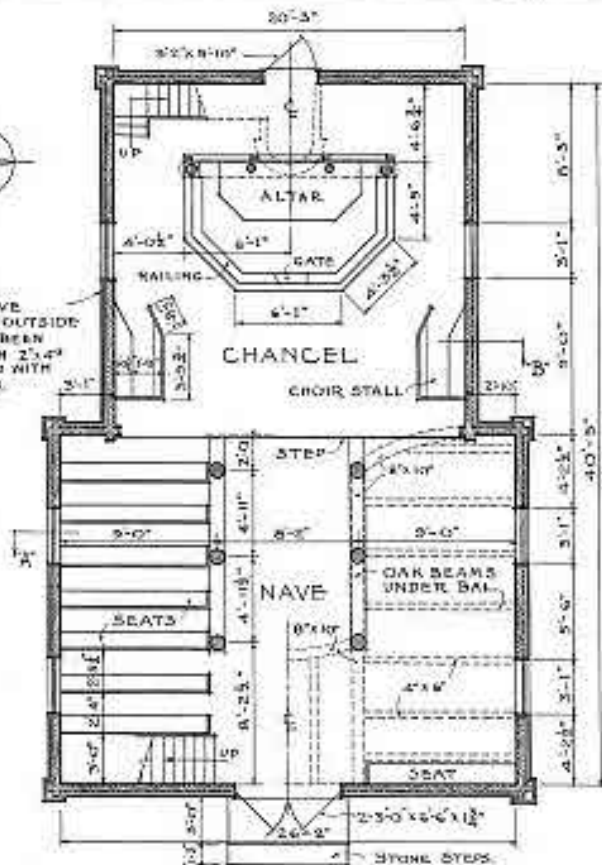
KEY TO MATERIALS



STONE



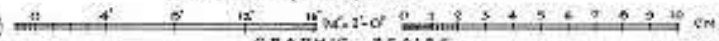
TO PRESERVE
STRUCTURE, OUTSIDE
WALLS HAVE BEEN
FLUXED WITH 25.4%
AND COVERED WITH
CLAPBOARDS.



MAIN FLOOR PLAN.

NOTE 5:

EXTERIOR WALLS - CONSTRUCTED OF RED OAK
LEGS - ADDED AND HAND PLANED TO
THICKNESS OF APPROXIMATELY 6".
WOOD FLOORS THROUGH.



GRAPHIC SCALES

E.D.CORWIN-DEL-

U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARKS, BUILDINGS, AND RESERVATIONS
BRANCH OF PLANS AND DESIGN

LOG CHAPEL.

PLANE OF STRUCTURE

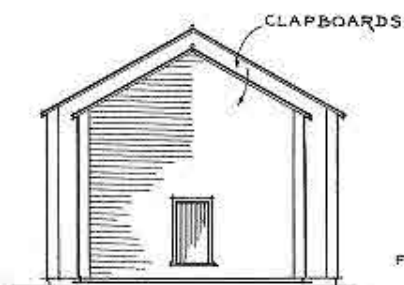
ST. PAUL MINN.

23-24

HISTORIC AMERICAN
BUILDING SURVEY
page 2 of 9 pages

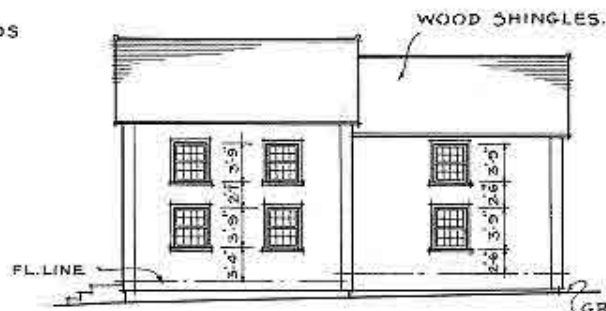
WEEK END
1-1-24
2-2-24

NOTE: NORTH ELEVATION SAME.



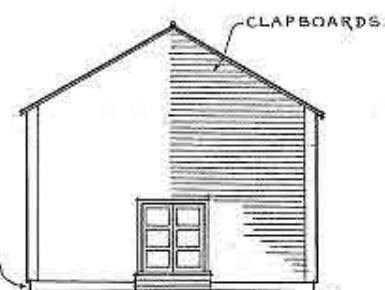
EAST ELEV.

SCALE $\frac{1}{8}" = 1'-0"$



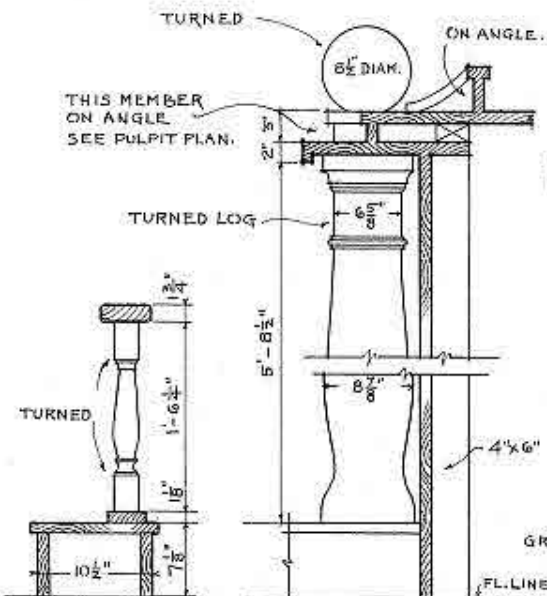
SOUTH ELEVATION

SCALE $\frac{1}{8}" = 1'-0"$



WEST (FRONT) ELEV.

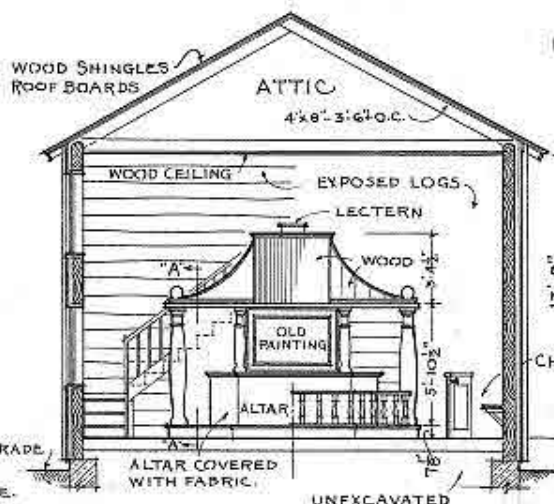
NOTE: TO PRESERVE STRUCTURE, EXTERIOR LOG WALLS HAVE BEEN FURRED WITH 2"x4"s AND COVERED WITH CLAPBOARDS. ENDS OF LOGS AT CORNERS OF BUILDING HAVE BEEN BOXED IN. ORIGINAL DOORS AND WINDOWS HAVE BEEN REPLACED.



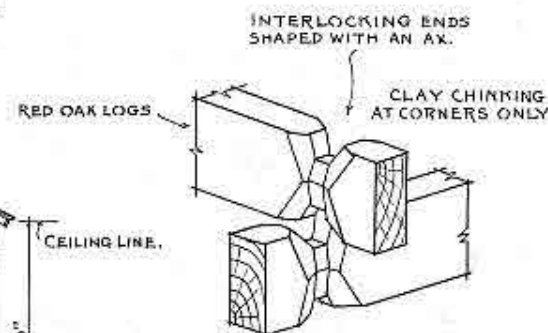
SEC THRU ALTAR RAIL.

SEC "A-A" SCALE $\frac{1}{2}" = 1'-0"$

E.D. CORWIN - DEL.

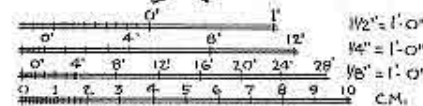
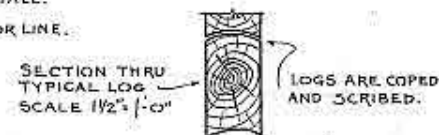


SECTION THRU CHANCEL TOWARD ALTAR SCALE $\frac{1}{4}" = 1'-0"$



ISOMETRIC VIEW

SHOWING METHOD OF INTERLOCKING LOGS AT CORNERS OF BUILDING.



GRAPHIC SCALES.

U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARKS, BUILDINGS, AND RESERVATIONS
BRANCH OF PLANS AND DESIGN

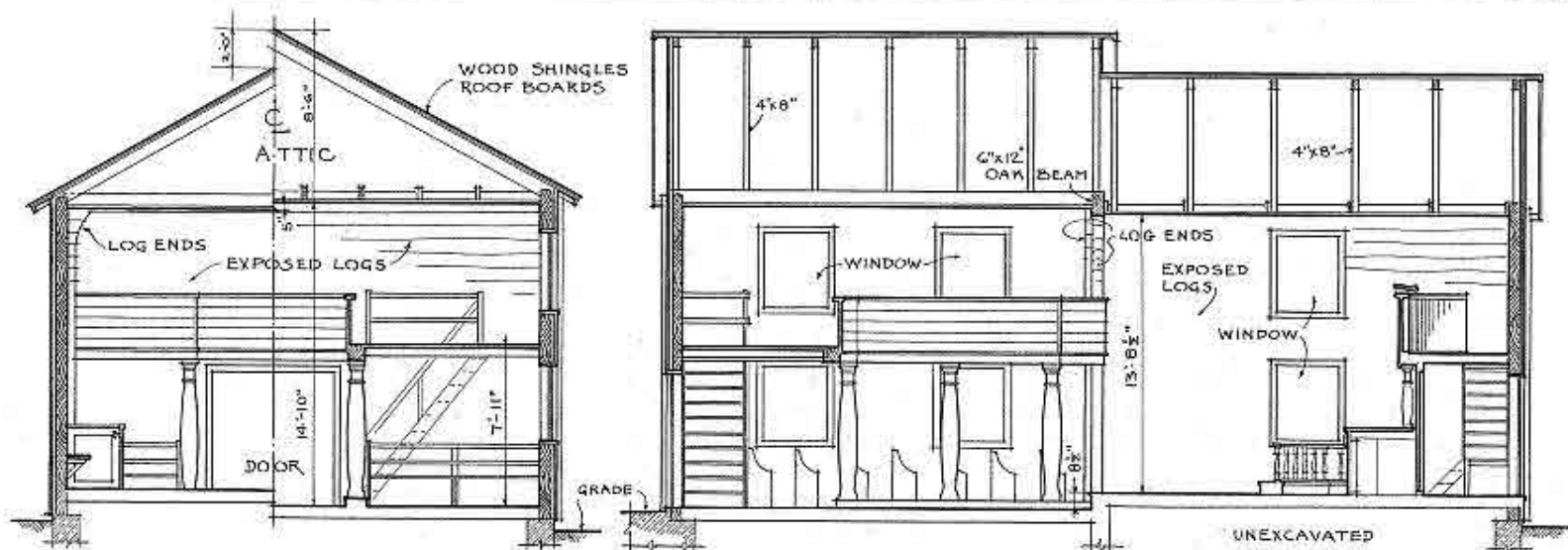
LOG CHAPEL. ST. PAUL MINN.



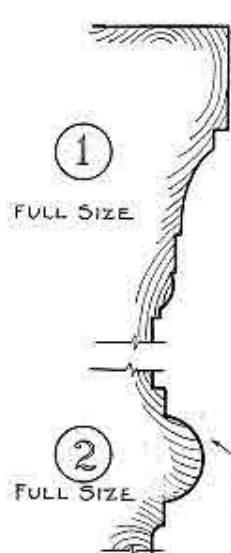
SURVEY NO.
29-24

HISTORIC AMERICAN
BUILDINGS SURVEY
SHEET 2 OF 3 SHEETS

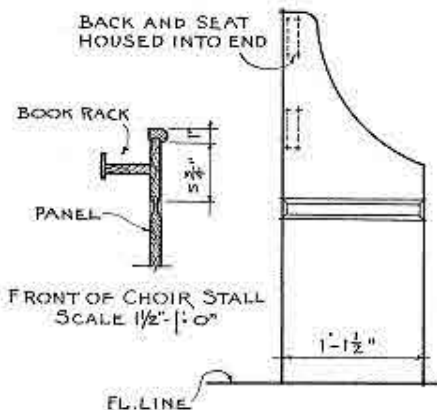
INDEX NO.
MINN.
62-5111A
1



SECTION ON LINE -A-B SCALE $\frac{1}{4}'' = 1'-0''$ LONGITUDINAL SECTION ON C OF BLDG.

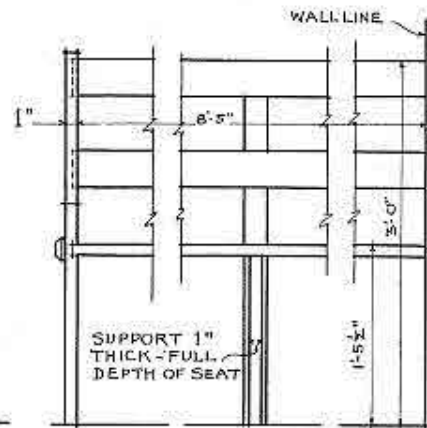


E.D. CORWIN - DEL.



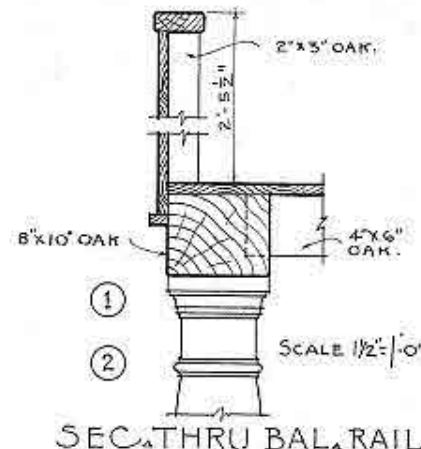
NOTE:
POSTS TURNED FROM
BLACK WALNUT LOGS.
DIAM. AT NECK $7\frac{3}{4}''$.
GREATEST DIAM. $10\frac{1}{2}''$

END ELEV.



FRONT ELEVATION

DETAIL OF SEATS IN NAVE
SCALE $\frac{1}{2}'' = 1'-0''$



SECTION THRU BAL. RAIL



U.S. DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARKS, BUILDINGS, AND RESERVATIONS
BRANCH OF PLANS AND DESIGN

LOG CHAPEL. ST. PAUL MINN.

NAME OF STRUCTURE



SURVEY NO.
29-24

HISTORIC AMERICAN
BUILDINGS SURVEY
SHEET 3 OF 3 SHEETS

INDEX NO.
MINN.
62-3111

Revised March 2015

Preservation Recommendations

Norway Lutheran Church (Muskego) Historic Structures Report

Luther Seminary

2375 Como Ave.

St. Paul, Minnesota 55108

- **General Approach:**

- Our recommendations follow The Secretary of the Interior's Standards Guidelines for Preserving and Restoring Historic Buildings. This includes repair of historic materials wherever possible and replacement only when necessary. Replacement materials would be in keeping with the design, color, texture, and materials of the historic fabric. Our recommendations are based on historic documentation. Some of our recommendations serve to reduce the need for future replacement by abating deterioration.
- We will be following the Preservation treatment approach in our recommendations.
- Preservation Brief 2: Repointing Mortar Joints in Historic buildings was followed in developing our recommendations.
- Preservation Brief 26: The Preservation and Repair of Historic Log Buildings was followed in developing our recommendations.

- **Site Conditions:**

- Trim back branches to get overhanging branches away from the building.
- Remove any dead or dying trees around the building.
- This will allow more sun and air circulation around the building that will allow the roof to dry out quicker and extend the life of the roof.

- **Utilities:**

- Consider replacing the overhead electric service with an underground service in the future. This is not a high priority.

- **Stone Foundation:**

- The David Arbogast mortar analysis found the mortar to be a high lime mortar with small amounts of natural cement. The lime to sand ratio was about 1 to 1.5.
- This would be a Type L mortar that will not weather well in the foundation.
- I would recommend a Type O mortar with a ratio of 1 part Portland cement, 2 parts hydrated lime, 9 parts sand.
- The mortar report found that the sand aggregate is very fine.
- We would recommend 100 per cent repointing of mortar joints from one foot below grade to the top of the stone foundation wall.

- Add a mortar wash at the top of the stone to the bottom log coursed. This may require beveling the bottom corner of the log to provide more contact surface between to stone and wood. This will help keep moisture out of the mortar and the bottom of the sill logs.
 - Second priority after roof replacement, and log restoration.
 - Refer to Jay Schmidt report for additional detail.
- **Exterior Log Walls:**
 - This work is high priority and should be done at the same time as the roof replacement.
 - The primary approach is to preserve as much original log fabric as possible.
 - We have recommended epoxy fill in interior rot conditions so that the interior and exterior of the log can be retained.
 - We recommend removing the exterior metal straps at the corners.
 - The exterior rot is too extensive in some areas to preserve the entire log. In these cases, the interior face of the log will be preserved and replacement exterior log faces will be installed to match the original as close as possible. There has been previous log refacing on the building. Refer to photos in the Historic Exterior Views section.
 - Replacement of all chinking is recommended to seal all of the joints to prevent moisture penetration.
 - We are still looking for the formula that Charles Nelson had recommended in the 1990s for chinking.
 - We also would recommend that samples of the original chinking be analyzed when the logs are removed for repair to determine the original mix. There is no original chinking visible on the exterior of the building.
 - Refer to Jay Schmidt for additional log restoration and chinking detail. Jay has some recommendations for chinking that we may wish to do some samples to verify what the best approach to the chinking process is.
- **Roofing:**
 - Replacement of the wood shingle roof should be the first priority for the preservation of the building. This would include the roof structure reinforcement recommended below.
 - Remove existing gutters and wood shingles down to the wood sheathing.
 - Inspect the roof sheathing and replace as required to match. The bottom sheathing board appeared to be deteriorated where we observed.
 - Install sheet metal flashing at the intersection of the Chancel roof and the Nave gable siding. There is currently no flashing at this point.
 - Replace the shingles with matching wood shingles including matching the existing shingle exposure.
 - Reinstall the half round gutters with proper brackets attached to the roof sheathing prior to installing new shingles.

- Refer to Jay Schmidt report for additional detail.

- **Roof Structure:**
 - Repair any rotted sill beams or rotted rafter ends. These can be fully inspected when the existing roofing has been removed.
 - The span between the 4x6 roof rafters ranges from 41” to 48” on center. This is a large spacing to support 1x6 wood sheathing. We would recommend adding a 2x6 wood rafter between each 4x6 rafter to reinforce the roof structure.

- **Ceiling Structure:**
 - We would not recommend trying to correct the wood ceiling sag but would recommend reinforcing with hanger boards from each of the new roof rafters to help prevent further sag.
 - This should be part of roof structure reinforcement.

- **Floor Structure:**
 - The floor structure is in good condition and does not require any work at this time.

- **Windows:**
 - We would recommend removal of all wood window sash for preservation work in a shop setting. The sash are in good enough condition where replacement sash or portions of sash is not required.
 - All of the existing finishes should be stripped and the glazing putty replaced.
 - All of the joints should be examined and repaired as needed to provide tight joints and a sturdy sash.
 - Refinish the sash with a natural finish on the interior to match the existing and the exterior painted to match the color of the weathered logs and exterior trim. Painting the exterior of the sash will provide a longer life for the sash.
 - Weather stripping is not required since the building is unheated.
 - Replace the sealant around the perimeter of the window frames.
 - Add a wood drip cap to the head of each window to keep water away from the window frame.
 - Third priority after foundation repointing.

- **Doors:**
 - The two exterior doors are in good condition and do not require any work at this time.
 - The wood canopy caps at each door should be maintained.

- **Cost Estimate:**
 - **Roof Replacement (Jay Schmidt):** **\$32,000**
 - **Log Restoration (Jay Schmidt):** **\$58,700**
 - **Chinking Restoration (Jay Schmidt):** **\$48,750**
 - **Stone Foundation Restoration (Jay Schmidt):** **\$28,700**
 - **Window Restoration (SP Windows):** **\$16,878**
 - **Cost Estimate Total:** **\$185,028**
 - **Chinking samples by Jay Schmidt:** **\$700**
- **Priorities:**
 - **First:** Replace roof shingles, and reinforce roof and ceiling structure. This is the most critical issue for the building. Roof replacement will keep the building dry and the structural reinforcement will insure the long term performance of the roof structure.
 - **Second:** Restore logs and chink all log joints. This work is as critical as the roof replacement and should be done at the same time if possible.
 - **Third:** Repoint stone foundation.
 - **Fourth:** Restore window sash and exterior frames including adding a weather cap to the windows.
- **Future Design Services:**
 - The recommendations and drawings in this report are not intended to be construction documents for the work. Additional design services would be required to prepare drawings and specifications for the recommended work that could be utilized for bidding and construction.
 - We would also recommend having Jay Schmidt do some chinking samples as part of the design process to determine the final construction specification for chinking.

11/12/2014

Robert Claybaugh
361 W. Government Rd.
Taylor Falls, MN 55084

Phone: 651-206-0980

Muskego Church Cost estimate for Restoration

Stone Foundation Restoration

- Excavated about 16" of existing soil around entire outside perimeter of stone foundation (approximately 128'). The excavation of soil needs to be done carefully as to not disturb existing stone foundation.
- After excavation remove all existing mortar below grade level on outside of stone foundation.
- Remove all existing mortar above grade of outside stone foundation.
- Clean entire outside perimeter of stone foundation of dirt, excess, mortar, etc. on stone foundation.
- Re-point the exterior of stone foundation where all old mortar has been removed. (Samples of the old mortar were taken to be laboratory tested so that new mortar used for tuck pointing will match the original. Old mortar appeared to be a lime/cement/sand mixture.)
- After re-pointing is complete replace removed soils and re-grade.
- No restoration work needed on interior stone foundation.

Probable cost estimated for stone foundation wall restoration:

\$28,700.00

Exterior Log Wall Restoration

- About 21 existing logs will need to be restored.
- I suggest preserving the interior of the log surface as it appears to be in excellent condition and do the necessary restoration from the outside.
- I suggest using period logs that would match the exterior of the existing logs.
- The log restoration would include:
 - Replacement of 7 logs (save interior veneer of original logs and place on interior of new logs.)
 - Replace exterior face of old log with new veneer log (6 logs)
 - Epoxy compromised logs to fill voids (5 logs)
 - Replace or patch small areas of rot (3 logs)
 - Straighten 2nd log south elevation, west end as it has rotated out.
 - Repair or replace 21 log end tails that are missing or in bad condition (repair using epoxy or when ends cannot be repaired make new ends out of similar log material fasten new ends to existing logs using doles and epoxy.)
 - After all log repairs are done then remove exterior metal straps on south west corner of Muskego Church.
- Note: Some shoring and jacking will be necessary to remove and repair logs (primarily on east elevation and to replace sill log on North elevation east side.)

Estimate of probable cost for log replacement and restoration

\$58,700.00

Chinking Restoration

- Remove all existing chinking (about 2,000 L.F.)
- Prep voids between logs to accept new chinking by cleaning, remove soft punky wood, repairing with epoxy, new daubing where necessary, and aluminum or stainless steel nails in top and bottom on log to grab new chinking.
- Another option would be to use stainless steel expanded lath in the joints to hold the mortar in place.
- We could possibly cut a drip kerf in the bottom of the upper log in the joints.
- Tuck point new chinking entire exterior of church.
- Note: Recipe for mortar used for chinking would be 1 part Portland cement, 4 parts masonry lime, and 6 parts mason sand. I would suggest taking a sample of the original mortar in for laboratory testing.

Estimated probable cost for re-chinking Muskego Church

\$48,750.00

Replace existing wood shingle roof

- Remove all existing gutters and down spouts. Also, remove ridge cap.
- Save gutters and down spouts to be re-installed as they are in good condition.
- Remove all existing wood shingles.
- Replace any rotted roof boards with matching roof boards that are in good condition.
- Re-nail all roof boards before re-shingling
- Remove roof boards on north side, to expose rotted top sill beam by the nave. Splice in new top sill plate.
- Re-shingle entire roof with new cedar shake singles, then re-install ridge cap and gutters that were saved.

Estimate probably cost to re-roof Muskego Church

\$32,000.00

Respectfully submitted by:

Jay Schmidt
Barn Restoration Specialist Corp.
15204 300th St.
Onamia, MN 56359

C: 320-360-6855
Email: jschmidtoldbarns@frontiernet.net

Muskego Log Church v1

Address:

2375 Como Avenue

St. Paul, MN

Date: 11/10/2014

Contractor: SP Windows

Contact: Mike Vanderscheuren

Email: Mvander@spwindows.net

Phone: 612-310-7795

Item	Description	Qty	Labor	Materials
Window Sash Restoration	Remove sashes, strip, stabilize sashes and jamb if necessary, fix glass if needed, re-glaze, re-finish interior and exterior, clean hardware and re-install	8	\$ 14,148.00	\$ 1,572.00
	Install New Drip Cap, Re-caulk window frames			
Exterior Window		8	\$ 1,008.00	\$ 150.00
Project Sub-Totals			\$ 15,156.00	\$ 1,722.00
Grand Total			\$ 16,878.00	

Norwegian Lutheran Church - Muskego
Historic Structure Evolution Database

	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1843		Constructed by Peter Jacobson in Muskego, Wisconsin	National Register nomination	1975	SHPO files	
	1843	12/28/1843	"The official board of the pioneer congregation initiated plans as to church site and construction on December 28, 1843."	"Welcome to Old Muskego Church, " undated brochure.	Undated	SHPO files	c. 1970?
	1843		Congregation received \$430 from Norway to build church	The Old Muskego Church, by Alice Stangland Kirn in Telesoga	5/1/2005	Seminary Archives	
	1844		"The structure as it stands now (save for the outside protective sheeting) was completed during the summer of 1844. It became at once the place of worship though not dedicated until March 13, 1845."	"Welcome to Old Muskego Church, " undated brochure.	Undated	SHPO files	c. 1970?
	1844		"The main structure is made of red oak logs. These were contributed by the members and hauled up to Indian Hill, a former Indian burial ground, where they were squared, notched and fitted. This work was according to the method of building log houses in Norway. The logs were so carefully fitted that no chinking or mortar was used. Likely the gift of money from Norway made this laborious process possible. Other early log churches were more hastily put together and have disappeared."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1968	Seminary Archives	
	1844		"...They selected the finest oaks in the woods and shaped them with the utmost care into building material. They found some very valuable walnut trees, the trunks of which they planed, chiseled, and turned to produce some elegant pillars.... Even the ceiling was made of polished walnut boards.... the building is 46 1/2 feet long and 20 feet wide."	Norwegians in America: the Last Migration by Hjalmar Rued Holand, p. 37.	1978	Copy in Muskego files, Seminary Archives	
	1844		"In the spring of 1844 the congregation began constructing a church on Indian hill. Each farm was to cut logs and bring them to the Church site. Halvor Nelson Lohner had charge of the construction of the church. Ole Haagason shingled the church. His wife Kari carried the shingles up the ladder for him."	"The Muskego Church" manuscript. Author unknown. Typed with handwritten revisions.	c. 1942	Seminary Archives	

Norwegian Lutheran Church - Muskego
Historic Structure Evolution Database

	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
c.	1844		Hans Ellertson described the church: "It was built of oak logs hewed on both sides, six inches thick, and notched after the Norwegian fashion of building houses. On the inside the logs were dressed so perfectly smooth and then fitted so close together that no mortar was used between them. Double doors in the front were made of black walnut. The pulpit was also made of walnut and was about seven feet from the floor. Galleries were built across the front and long both sides to about the middle of the church. These galleries were supported by six heavy columns turned out of solid walnut." from Anderson, p. 419	As quoted in <i>In Jesus' Name Shall All Our Work Be Done</i> , Karen Hanson. Commemorating the 150th Anniversary of Norway Evangelical Lutheran Church, Wind Lake, Wisconsin	1993	Seminary Archives	
c.	1844		H. A. Stub reminisced about the church in the North Star: "The main part measured by my own foot is 20' by 26'. The pulpit stands above the altar, seven feet from the floor, so the head of the pastor came alarmingly near the ceiling. Above the communion table was a little oblong altar picture of the Lord's Supper. On each side were chairs for the pastor and the deacon. Each side had three pairs of windows with small panes, one pair above the other as in an ordinary house. The location of the church symbolized the position which the Norwegian church in America was destined to occupy as the power which was to penetrate and dominate the people. The church sat on two acres of land, the first Norwegian Lutheran churchyard. Aboriginal inhabitants lay buried there, also then our own people."	As quoted in <i>In Jesus' Name Shall All Our Work Be Done</i> , Karen Hanson. Commemorating the 150th Anniversary of Norway Evangelical Lutheran Church, Wind Lake, Wisconsin	1993	Seminary Archives	
c.	1844		p. 148, note 2. Church description: "The Muskego church 'was built of oak logs hewed on both sides, six inches thick, and matched after the Norwegian fashion of building houses. On the inside the logs were dressed perfectly smooth and then fitted so close together that no mortar was used between them. Double doors in the front were made of black walnut. The pulpit was also made of walnut and was about seven feet from the floor. Galleries were built across the front and along both sides to about the middle of the church. These galleries were supported by six heavy columns turned out of solid walnut. In fact the church was pretty well furnished inside." Quoted from Anderson, <i>Norwegian Immigration (1821-1840)</i> , 419-420.	<i>A Chronicle of Old Muskego: the Diary of Soren Bache, 1839-1847</i> . Translated and edited by Clarence A. Clausen and Andreas Elviken, NAHA, 1951	1951	MHS	

Norwegian Lutheran Church - Muskego
Historic Structure Evolution Database

	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
c.	1844		p. 23-24 "The church was made of red oak, unpainted, revealing the pleasing colors of new, fresh, shapely logs. They were hand-hewn and as smooth as if finished with a plane, so tightly fitted together that no mortar was needed or used. In contrast, but still in harmony with the pure, smooth interior walls, were the pillars supporting the gallery, the two pillars on either side of the pulpit, the altar, and the pulpit, all of black walnut artistically made. The entire interior measures forty-five feet in length, the main body is thirty feet wide and the chancel twenty feet wide. There are two rows of three windows on either side. The double doors at the entrance were also of black walnut.	<i>The Saga of Old Muskego</i> , N. N. Rønning, published by Old Muskego Memorial, Waterford, Wisconsin, 1943	1943	MHS	
c.	1844		"There are seven pews on one side and eight on the other, having a seating capacity of ninety. The gallery had a seating capacity of at least one hundred. When making use of the aisle and the part of the chancel it was possible to crowd up to two hundred and fifty people into the church."	<i>The Saga of Old Muskego</i> , N. N. Rønning, published by Old Muskego Memorial, Waterford, Wisconsin, 1943	1943	MHS	
	1845	3/13/1845	Dedicated as the first Norwegian Church in the United States.	National Register nomination	1975	SHPO files	
	1845	3/13/1845	Dedicated as the first Norwegian Lutheran Church in U.S.	"Muskego Church," Minnesota History	Mar-63	MHS	
	1845		"The church itself is 45 feet long and 25-30 feet wide. One third of it is occupied by the chancel, showing how important this part of the structure was for the builders."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1968	Seminary Archives	
	1845		"At the front of the church, we see the high pulpit. This follows the pattern of the churches in Norway. However, those churches had high and usually vaulted ceilings. Using a high pulpit in the Muskego church placed the preacher right below the ceiling where it must have been hot both summer and winter. However, it did enable him to see the people in the gallery."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1968	Seminary Archives	

Norwegian Lutheran Church - Muskego
Historic Structure Evolution Database

	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1845		"The altar is home made, the only ornamentation being the rounded pillars which are of black walnut and of the same style as the ones along the aisle. The altar picture was once a scene of the Last Supper. The altar cloth is hand made. The communion vessels are pewter. The books on the altar are a copy of Luther's postille from which the housefather often read a sermon when there were no services at church, a hymn book and a Bible of some 1550 pages, so thick because it contains the apocryphal books and the paper is not thin."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1968	Seminary Archives	
	1845		"Only original pieces are the pulpit and klokker box. No organ, baptismal font, stove would have been vented."	"Muskego Notes" apparently for a tour. Source of the notes is unknown.	10/1/1993	Seminary Archives	Source of notes is not known. What is evidence of original pulpit and klokker box?
	1845		"The interior furniture was of black walnut....In its present shape with siding to preserve it from the elements, the church measures: Nave 28' wide x 22' long. Chancel 21'9" wide x 21' long."	"The Muskego Church" manuscript. Author unknown. Typed with handwritten revisions.	c. 1942	Seminary Archives	
c.	1848		"Then a small cast-iron stove was installed up front, with the stove-pipe circling around beneath the balcony and out on the other side."	"Muskego Church," Minneapolis Tribune	3/4/1973	Minneapolis Tribune	
c.	1848		"The church was built of great oak logs, hewed flat on two sides, while on the inside were great oak planed smooth and fitted together, just as dwelling houses were built in Norway. In fact the interior was like the finest board walls. The main body of the church, as I remember it, was 34 by 24 feet, to which was added a chancel 24 by 16 feet. The chancel was attached to the main building four feet from the corners at each end, so that the church in a way resembled a cross. The roof of the chancel also was lower than that of the main building. Windows were placed in each of the long walls, one above the other as is customary in two-story buildings. The gallery was built square across the building at the main entrance and continued half way down the sides. The gallery was supported by six strong walnut pillars. The altar, pulpit and baptismal font were also of walnut very heavy and strong.... The building itself and everything within it was very solid. It seemed as if it had been designed to last from generation to generation – perhaps for centuries."	Rev. H. A. Stub came to Muskego from Norway in 1848 and preached his first sermon at the Muskego church. On the occasion of the golden jubilee (1898) noted his reminiscences of the church. As quoted in Barton, 1921.	1921	MHS	

Norwegian Lutheran Church - Muskego
Historic Structure Evolution Database

	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1849		"There was not heat in the church during the first five winters. So it was natural that 1849 would have been a memorable year since it meant the addition of a decorative cast iron stove, which still stands in the chancel of the church."	Minneapolis Star	6/9/1948	Seminary Archives	Addition of the wood stove in 1849 is likely apocryphal.
c.	1849		From Stub's letter: "Next Sunday, I begin teaching the children after services! This is possible because we now have a stove. We took up a collection in the community and raised enough just before Christmas so that we had heat on New Year's Day. It is a large stove whose pipes encircle the church in the choir loft and radiate the necessary heat. Now without endangering the children's health can gather them in church and speak to them about heavenly things."	As quoted in <i>In Jesus' Name Shall All Our Work Be Done</i> , Karen Hanson. Commemorating the 150th Anniversary of Norway Evangelical Lutheran Church, Wind Lake, Wisconsin	1993	Seminary Archives	
	1850		"... need for repair as early as 1850. Most evidence on original appearance and furnishing comes from references in this repair period. However, must still ask if records of this period are more reliable than accounts such as H. G. Stub's of some 60 years after the start."	"Old Muskego Church Highlights," Paul Daniels, Luther Seminary Archivist	3/25/2000	Seminary Archives	
	1851		Trustee Minutes mentioned needed repairs to the church in August 1851. Sent a team to Racine to buy 600 feet of boards. Got lime hauled from Waterford.	Book I of the Minutes of the Trustees of Norway Church, translated from Norwegian by Pr. Don Berg in 1993	1851	Seminary Archives	
	1851	10/27/1851	"We still were considering the repair of the church building, how the work could be carried out the most cheaply and best. We then came to the decided result that the work should take place by means of bidding, the carrying out of which bidding should be held at the home of Mathias Lorensen next Monday the 3rd of November.... Next we agreed about letting a team [?] go to Burlington and fetch 300 bricks, as well as to let a team go to Waterford and fetch lime. Still we decided to buy the rest of the siding which we needed from Milwaukee, which we presumed at approx. 2300 feet, but since we did not have money for this and could not wait until so much money came in from the congregation's members, we resolved to take the siding on credit and obligated ourselves to pay for it 3 weeks from the day we get it."	Book I of the Minutes of the Trustees of Norway Church, translated from Norwegian by Pr. Don Berg in 1993	10/27/1851	Seminary Archives	

Norwegian Lutheran Church - Muskego
Historic Structure Evolution Database

	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1851		Work to be completed by Halvor Olsen Skare: "1) to open up <i>Skandtlinger</i> for a distance of 20 inches around the entire church building (up and down) which shall be done such that nothing is cut from the log walls and something is filled in below the <i>Skandtlinger</i> so that the board covering can be improved."	Book I of the Minutes of the Trustees of Norway Church, translated from Norwegian by Pr. Don Berg in 1993	11/3/1851	Seminary Archives	
	1851		Work to be completed by Halvor Olsen Skare: "2) to use gypsum or plaster the walls with lime well-worked for this purpose, as well as to use gypsum or plaster the foundation so well that neither water nor air can force in through them."	Book I of the Minutes of the Trustees of Norway Church, translated from Norwegian by Pr. Don Berg in 1993	11/3/1851	Seminary Archives	Plaster applied to (interior?) walls and foundation
	1851		Work to be completed by Halvor Olsen Skare: "3) to mortar beneath the steps in front of both the doors and to mortar a chimney which shall go from the vaulted ceiling to 3 1/2 feet above the highest point of the roof; it shall be mortared according to the general pattern and size, but NB exceptionally sound with an arch and a water-____ on."	Book I of the Minutes of the Trustees of Norway Church, translated from Norwegian by Pr. Don Berg in 1993	11/3/1851	Seminary Archives	Installation of brick chimney suggests addition of wood stove at this time.
	1851		Work to be completed by Halvor Olsen Skare: "4) to cover the entire church all around on the walls and the front part from the foundation to the roof with grooved siding, as well as work to make tight the window moldings around all the windows on the church building noted and work to make tight the corner boards on the same church building, which corner boards shall be worked up as customary, yet as soundly as it is proper on a church building."	Book I of the Minutes of the Trustees of Norway Church, translated from Norwegian by Pr. Don Berg in 1993	11/3/1851	Seminary Archives	Suggests installation of (exterior?) grooved siding.
	1851		Work to be completed by Halvor Olsen Skare: "5) to take off the entire vaulted ceiling and drive it tightly together. This work I take on and commit to carry out for \$40, as well as to commit myself to have it figured up." All the work is to be done within 6 weeks from this date."	Book I of the Minutes of the Trustees of Norway Church, translated from Norwegian by Pr. Don Berg in 1993	11/3/1851	Seminary Archives	
	1851		Selected listing of items related to repair work: nails; doors brought from Racine; 2300 feet of siding from Milwaukee; corner boards and moldings; 300 bricks brought from Burlington; 20 ____ lime of which 8 ____ (were) pledged @ 12 1/2 per B; 1 elbow for the stovepipe; 12# of 8 penny nails; 1 pottery [sleeve?] around the stovepipe in ceiling; 2 elbows for the pipes; 8 windowpanes at 3 cents each; 33# of shingle nails; hinges for the doors, Helge Towsen	Book I of the Minutes of the Trustees of Norway Church, translated from Norwegian by Pr. Don Berg in 1993	1852	Seminary Archives	Suggests installation of wood stove; new door
	1860		Farmer purchased building and used it for a barn.	"Muskego Church," Minnesota History	Mar-63	MHS	

Norwegian Lutheran Church - Muskego
Historic Structure Evolution Database

	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1869		Original log structure replaced with a larger building.	National Register nomination	1975	SHPO files	
	1869		Original log building moved to old Jacobsen farm to be used as a barn and storage shed.	National Register nomination	1975	SHPO files	
	1869		This building served the community until 1869 when a new church was erected. The old one was then sold to a nearby farmer.	A Chronicle of Old Muskego: the Diary of Soren Bach, 1839-1847. Note 2.	1951	MHS	
c.	1869		"The settlers had sold the small log affair to a farmer living nearby. He used it as a barn. For a considerable period thereafter until its redemption its sturdy interior with its oak logs hewn flat listened to the bleat of sheep rather than to the low voices of pioneers in prayer."	"First Church of Norwegian Lutherans in American Stands Restored in St. Paul," St. Paul Pioneer Press	2/9/1930	Pioneer Press	
	1869		"In 1869 the congregation built a new stone church on the same place as the log church. The Muskego log church was sold and dismantled and set up again and used as a barn for over thirty years."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1968	Seminary Archives	
c.	1869		"When the Muskego colony had outgrown the little building it was sold to a nearby farmer who used it as a stable for his sheep. For many years it was disregarded by the children of those first settlers."	Muskego Church History manuscript	c. 1940	Seminary Archives	
	1869		Hans Jacobson bought old log church for \$150 and moved it to his farm.	The Old Muskego Church, by Alice Stangland Kirn in Telesoga	May-05	Seminary Archives	
	1869		"Long afterward when it was decided to build a new church, the old church was sold to a neighboring farmer, Jacobson. He sold the walnut pews and pulpit to a Milwaukee furniture factory and used the building for a barn."	"The Muskego Church" manuscript. Author unknown. Typed with handwritten revisions.	c. 1942	Seminary Archives	
	1870		"It was decided that the old church shall be sold at public auction, Wednesday the 12th of this month, and [the sale price] shall be paid in by the buyer before the 1st of October this year, with the addition of 7 per cent, but 3 per cent if the purchase price is paid with cash."	Book I of the Minutes of the Trustees of Norway Church, translated from Norwegian by Pr. Don Berg in 1993	1/3/1870	Seminary Archives	
	1871		"The [new] church's site is the same as that of the old church, i.e. on a large elevation with a view toward two lakes below, one to the north and one to the northeast, and a lovely landscape besides. The old church, which was built partly with the help of 400 specie daler which old Tollef Bakke from Drammen gave thereto, is now moved away, and a fine new church rises proudly with its spire in the old one's place."	Manuscript excerpt from <i>Kirketidende</i> , 1871, pp. 333-4	1871	Seminary Archives	

Norwegian Lutheran Church - Muskego
Historic Structure Evolution Database

	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1894		From R. Andersen, "Den gamle Kirke. Gamle Kirker og Mindesmerker," <i>Lutheraneren</i> , X (1904), 648. "The writer (Rasmus Andersen ?) recalls a conversation with Hoyme in 1894, in which Hoyme told him of his desire to restore and move Old Muskego Church."	"Data on Restoration and Moving Of Muskego Church" provided by E. Clifford Nelson, summer, 1966	1966	Seminary Archives	
	1897		From Hjalmar Rued Holdan, "De Norske Settlemeters Historie" (Ephraim, Wis.: Forfatterens Forlag, 1908) p. 120 "Holand (Kensington Runestone Holand) says that he visited Muskego in 1897 and was so disturbed to find the church being used as a pig sty that he wrote a letter to <i>Skandinaven</i> advising its restoration. He claims that Pastors Hoyme and Rasmussen pick up his suggestion and carried the project through."	"Data on Restoration and Moving Of Muskego Church" provided by E. Clifford Nelson, summer, 1966	1966	Seminary Archives	
	1897		"I (ECN) examined every issue of <i>Skandinaven</i> for 1897 and found no letter from Holand. However, I did find a letter from a young American Ibsen-enthusiast, Sebastian Selkirk, from Indianapolis, Indiana, who had bicycled through the Norwegian settlements in southern Wisconsin. The account of his trip published. Here he states (<i>Skandinaven</i> , Nov. 10, 1897, p. 12) that he came across the old Muskego Church being used as a pig sty (grisehus). He expresses the hope that the Norwegian leaders will not continue to permit this indignity but will see to its restoration."	"Data on Restoration and Moving Of Muskego Church" provided by E. Clifford Nelson, summer, 1966	1966	Seminary Archives	
c.	1900		"About the turn of the century, interest in the old building was aroused as some people realized that it is a very historic building. A committee was appointed in the United Norwegian Lutheran Church and money was collected to buy and rebuild the church in its original form."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1968	Seminary Archives	
	1900		"By 1900 the church had been bought (letter, Hoyme to Rasmussen, in Rasmussen Papers at NAHA Archives, St. Olaf College, Northfield) for the United Church. However, a representative of the Norwegian Synod went to Muskego and offered H. Jacobson, the owner, double the sum. But Pastor Wilhelm Rasmussen of Muskego immediately drew up a contract which H. Jacobson signed. He then wrote his brother (?) Gerhard Rasmussen, from whom he received, a few days later, a check for \$100. (see Wilhelm A. Rasmussen, "Muskego Kirken," <i>Lutheraneren</i> , X [September 7, 1904], p. 570)."	"Data on Restoration and Moving Of Muskego Church" provided by E. Clifford Nelson, summer, 1966	1966	Seminary Archives	

Norwegian Lutheran Church - Muskego
Historic Structure Evolution Database

	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1902	25-Jun-02	"The pleasantest feature of the afternoon session was the touching speech on a Norwegian-American church relic by Rev. L. M. Bjorn, Zumbrota. More than fifty years ago a few Norwegian farmers built a log church at Muskego, Wis. It served its purpose well for a number of years. Then the prosperous parishioners erected a modern church building and the old log church was used for diverse secular purposes by the farmer owning the ground on which it stood. A few years ago the late President Hoyme of sainted memory, and Rev. G. Rasmussen bought the shell, marked every part carefully, and towed them in a place of safety. The builders cut their names into the logs they contributed, and the names are still there distinct as half a century ago. To the east of the United Church seminary is a small knoll, and there it is proposed to reconstruct the old log church, and use it for a museum for the Norwegian Lutheran Church of America. After brief discussion it was resolved that the ministers of the United Church be authorized to dispose of the Muskego relic according to the above plan. Mr. Gallord, lay delegate from Slayton, Minn., said that he came to America in 1846, and that he and other laymen would be glad to contribute to the expense of removing and re-erecting the old church in St. Anthony Park."	"Will Rebuild Log Church," Minneapolis Tribune	25-Jun-02	Minneapolis Tribune	
	1902	15-Jul-02	"The first church built in America by the United Norwegian Lutheran denomination will be installed as a museum at the St. Anthony Park Lutheran Seminary belonging to that denomination. The building was purchased by private subscription, and the convention of the church held in Minneapolis voted on Saturday to pay the cost of its transportation from Muskego, Wis., where it now is, to St. Paul. The church was built in 1844 by the Norwegian Lutherans at Muskego. It was dedicated in 1845 by Rev. C. L. Clausen a Dane, assisted by Rev. J.W.D. Diedrichson and L.F. Krause, a German Lutheran of the Buffalo synod."	"Will Move Entire Church," Minneapolis Tribune	15-Jul-02	Minneapolis Tribune	

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1902		"At the convention of the United Church in 1902 Pastor L. M. Biorn spoke about the restoration of the church. (see Rasmussen Papers, NAHA Archives, St. Olaf College.) The minutes of the United Church report that a resolution was passed urging pastors to collect the necessary funds. Rasmussen spoke to the ministerium and was made chairman of the Muskego Church committee which was given power to act once they had the money (Beretning... Den Forenede... Kirke... 1902,p. 280). Contributions were slow in coming in. Several letters in Lutheraneren in summer and fall of 1904 have pleas to send in money for the project. \$2,000.00 was needed (Lutheraneren X, [July 27, 1904], p. 472)."	"Data on Restoration and Moving Of Muskego Church" provided by E. Clifford Nelson, summer, 1966	1966	Seminary Archives	
	1902		In the 1902 Annual report, page 280, of the United Norwegian Lutheran Church in America we find the following resolution, "in connection with the restoration of the old Muskego Church, it is decided: the Church body's pastors to gather in the necessary funds and Pastor Gerhard Rasmussen is to head up the undertaking."	"The Muskego Church: Notes and Articles about its removal from Wisconsin to the Seminary, St. Paul, Minn." by E. W. Sihler, assistant archivist	1965	Seminary Archives	
	1903	2/19/1903	"The old log church will soon be sent to St. Paul, Minn. And given a conspicuous position in the beautiful park surrounding the seminary of the United Lutheran Church. We are informed that it is to appear in its original form and to be used as a museum. It was the first Norwegian church built in America and the first in the state of Wisconsin. We are sorry to hear that the relic should be taken out of the state. It should have been rebuilt on the old Indian mound."	copy form Waterford Post dated 2/19/1903	1903	Seminary Archives	
	1904		"Built of red oak logs. Hewn and fitted. No mortar. Used as church until 1869 when sold to a farmer who used it as a barn. Frame church built at that time. Bought and logs marked an moved to this place [Luther Seminary campus] in 1904."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1963	Seminary Archives	
	1904		Building purchased, dismantled and removed to be reconstructed on Luther Seminary site.	National Register nomination	1975	SHPO files	
	1904		Exterior log walls furred with two-by-fours and covered with clapboard siding for protection.	National Register nomination	1975	SHPO files	
post	1904		Cement stairway constructed to double door entry	National Register nomination	1975	SHPO files	
post	1904		Interior restored to its initial appearance	National Register nomination	1975	SHPO files	

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1904		Building purchased by United Norwegian Lutheran Church in America, dismantled, and shipped piece by piece to St. Paul, and reconstructed on a slight rise of ground reminiscent of its original location.	"Muskego Church," Minnesota History	3/1/1963	MHS	
post	1904		"Although the exterior has been covered by modern-looking lap siding, the interior has been restored to its original appearance. None of the wood inside has been painted, and the marks left by the adz and plane testify to the hard labor that went into the church's construction."	"Muskego Church," Minnesota History	3/1/1963	MHS	see photo in article
post	1904		"The walls are formed by huge red oak logs fitted tightly together and planed almost smooth."	"Muskego Church," Minnesota History	3/1/1963	MHS	
c.	1904		"On the exposed ends of the logs are numbers indicating each one's position. These timbers were marked at the time the church was dismantled."	"Muskego Church," Minnesota History	3/1/1963	MHS	
c.	1904		"After is had served as a stable and almost tumbled down, its reclamation was started."	"First Norwegian Church in U.S. to Be Re-opened," Pioneer Press	5/27/1917	Pioneer Press	
c.	1904		"The late Rev. G. Hoyme, Eau Claire, then president of the United Norwegian Lutheran church, and Rev. Gerhardt Rasmussen, whose father often had preached in the church, undertook to insure its preservation. At their own expense, they had the logs taken apart and marked for reconstruction and then presented them to the church in the United States on condition that the church would be rebuilt and used for services as frequently as possible."	"First Norwegian Church in U.S. to Be Re-opened," Pioneer Press	5/27/1917	Pioneer Press	
	1904		"After being shipped in parts it was rebuilt here [St. Paul] by another relative of the original Peter Jacobson who had built it in Muskego in 1843."	"First Church of Norwegian Lutherans in American Stands Restored in St. Paul," St. Paul Pioneer Press	2/9/1930	Pioneer Press	
	1904		The year 1904 "was when the siding and shingles were put on it to protect it from the elements and prolong its life."	"First Church of Norwegian Lutherans in American Stands Restored in St. Paul," St. Paul Pioneer Press	2/9/1930	Pioneer Press	
	1904		"The building was dismantled, its logs marked and numbered, and reconstruction on its present site, the campus of Luther Theological Seminary in 1904."	"Welcome to Old Muskego Church, " undated brochure.	Undated	SHPO files	c. 1970?

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1904		"The church was dismantled again, the parts marked and shipped to St. Paul, where it was reassembled in 1904 on the Luther Seminary campus. Fortunately, the son of Peter Jacobson was living and was able to undertake the job. He had worshipped in the church from 1844-1869 so remembered well how it looked as a church. The outside walls and one of the pillars are from the original church. All the rest is a reproduction. The siding was added to protect the logs."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1968	Seminary Archives	
	1904		"A. L. Dahl, writing Aug. 3, 1904, says that Hoyme and G. Rasmussen bought the church. In August, 1904, it was packed and ready to be shipped. In fact, it had been ready since 1902, but no money to ship it to St. Paul (<i>Lutheraneren</i> , X [Aug. 3, 1904], p. 485)."	"Data on Restoration and Moving Of Muskego Church" provided by E. Clifford Nelson, summer, 1966	1966	Seminary Archives	
	1904		"Finally, late autumn or early winter, the church arrived in St. Paul, where it was being re-assembled and re-built on the campus of the Seminary. G. Rasmussen wrote to <i>Lutheraneren</i> (Dec. 7, 1904), p. 776: 'Hurra! Nu er den paa rette Sted.' But, he went on to say, the treasury was empty and a loan would be necessary if gifts were not forthcoming."	"Data on Restoration and Moving Of Muskego Church" provided by E. Clifford Nelson, summer, 1966	1966	Seminary Archives	
	1904		"It [the church] was taken apart, the logs carefully numbers [sic] with chalk, and reassembled on the Luther Seminary campus. Strangely enough, it was a relative of the Peter Jacobson who built the church in 1843 that had the task of reassembling the log church here. Siding and roofing were added to preserve the structure."	Muskego Church History manuscript	c. 1940	Seminary Archives	
c.	1904		"Man who grew up in Muskego helped remake some pieces just as it was.... 1 old bench v. like orig. ones... cross shipped from New. In 1956."	Handwritten tour notes	1971	Seminary Archives	

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1904	9/15/1904	"The ruins of the old Norwegian Lutheran church, which was built in the town of Norway in 1845, being the first church of the denomination in the United States, will be removed from Wind Lake this week to the grounds of the United Norwegian Lutheran college between Minneapolis and St. Paul, where the church will be restored and preserved as a memorial. The church was abandoned many years ago and sold to a farmer, of whom several Lutheran ministers bought the building, which was torn down. The logs, which were cut sixty years ago in the marshes of Racine county, were taken to Muskego Center awaiting removal to Minnesota."	copy from Waterford Post dated 9/15/1904	1904	Seminary Archives	
	1904	8/25/1904	"The old original log church, which is said to be the first Norwegian Lutheran house of worship built in America, is about to be removed to Minneapolis. Sometime ago the logs were taken apart for shipment. The building will be reconstructed and put in its original form as near as possible and no doubt will be a curiosity often visited by the Scandinavians of the great northwest. It seems a shame that it could not remain on the old foundation and be as a monument to the hardihood and Christian fortitude of the first Norwegian settlers."	copy from unknown newspaper dated 8/25/1904	1904	Seminary Archives	
	1904	7/27/1904	From <i>Lutheraneren</i> . July 27, 1904. By Gerhard Rasmussen. States that Mr. Jacobsen, son of the man who built the church, has promised and feels it is an honor that he could restore this church. There are a few paragraphs of quotations from Jacobsen's letter about the appearance of the church, how edified they were when worshiping there, and he gives a list of the pastors."	"The Muskego Church: Notes and Articles about its removal from Wisconsin to the Seminary, St. Paul, Minn." by E. W. Sihler, assistant archivist	1965	Seminary Archives	
	1904	8/31/1904	From <i>Lutheraneren</i> . August 31, 1904. By Gerhard Rasmussen: Do you wish to be along in the moving and restoration of the Muskego Church? Then send a contribution to the church Treasurer, Erick Waldeland. Everything helps. The old oak logs will soon decay if they lie much longer where they already have been for several years!	"The Muskego Church: Notes and Articles about its removal from Wisconsin to the Seminary, St. Paul, Minn." by E. W. Sihler, assistant archivist	1965	Seminary Archives	

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1904	9/7/1904	Translation of article by Wilhelm Rasmussen describing the negotiations around acquiring and moving the church to St. Paul. Hans Jacobsen owned the building when it was acquired by the ELC.	"The Muskego Church: Notes and Articles about its removal from Wisconsin to the Seminary, St. Paul, Minn." by E. W. Sihler, assistant archivist	1965	Seminary Archives	
	1904	12/7/1904	Article by Gerhard Rasmussen. "The old weathered logs which were cut and shaped and dedicated as a church over 60 years ago by the Norwegian immigrants are now lying on the Seminary grounds in St. Anthony Park. Mr. C. L. Jacobsen, son of the man who for many years served as the church's 'klokker,' is ready to put them together again into a building, so they will be under roof and preserved. This unique building is thus preserved and will remain beside the Seminary as a reminder of the Norwegian immigrants' enterprise and churchly interest. Means for this restoration are sorely needed. the church could not fly from Wisconsin to St. Anthony Park. It could not raise itself up. Men, workers, money were needed, etc. etc. In the meantime the treasury is empty. Won't you, dear reader, immediately send a contribution? It is badly needed. Pastor Otto Schmidt, in Muskego, has obtained a detailed drawing of the church. I highly recommend this picture, It can be bought for 25 cents and obtained from Pastor Schmidt, whose address is Waterford, Wis. All profits from the sale of this small picture will be used to defray the expenses of the restoration."	"The Muskego Church: Notes and Articles about its removal from Wisconsin to the Seminary, St. Paul, Minn." by E. W. Sihler, assistant archivist	1965	Seminary Archives	
	1904		"Subscriptions raised toward \$2,000 total move and re-assembly costs. Logs numbered and labeled with directions (SW, SE, etc.) of placement at new site."	"Old Muskego Church Highlights," Paul Daniels, Luther Seminary Archivist	3/25/2000	Seminary Archives	
	1904		"Appears now that several secondary recollections of church interior and furnishings influenced rebuilding. Questions now about accuracy of these and lack of much original support for them. Placement in park-like setting at United Church site in 1904-05. Placed in grove of newly planted pines, akin to original Indian Hill site."	"Old Muskego Church Highlights," Paul Daniels, Luther Seminary Archivist	3/25/2000	Seminary Archives	
c.	1904		"Original doors and windows have been replaced."	Historic American Building Survey	1934	Library of Congress	Assume window and door replacement at time of reconstruction.

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1905	15-Jul-05	"The Rt. Rev. G. Hoyme, the late president of the United Church, and Rev. Gerhard Rasmussen, realizing the historic value of the first church built by the Norwegians in America, visited the settlement and purchased the historic building in order that it might be preserved for coming generations. The two ecclesiasts next reported their action to the annual convention and offered to transfer the old building, provided the United church would take action to have it restored and preserved in a suitable place. The United church convention decided to move the church from its original location in Wisconsin to the theological seminary grounds at St. Anthony Park, midway between Minneapolis and St. Paul. There a seminary building had just been dedicated at a cost of over \$100,000. Mr. Rasmussen reported yesterday that since the last annual convention the "Old Muskego Church" had been transferred to St. Anthony Park and erected near the seminary and was now ready for the inspection of the convention. The convention decided to go in a body to St. Anthony Park next Tuesday afternoon. Side by side members of the convention will behold the first structure erected by the Norwegian Lutherans in America and the grandest and most expensive structure erected by the Norwegian Lutherans in America up to the present time."	"First Church is Here," Minneapolis Tribune	6/18/1905	Minneapolis Tribune	

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1905	25-Jun-05	"Its exterior gave the appearance of two log houses, one a trifle larger than the other, joined the one to the other end to end. The larger of these contained pews for the congregation and above these pews was a large gallery supported by heavy hardwood pillars. The smaller was the chancel, the floor of which was elevated above the part of the church which contained the pews for the congregation. In that part of the chancel nearest the congregation near opposite walls and facing each other were two enclosed pews, one for the pastor, which he occupied during the singing of hymns by the congregation, and the other for the deacon, who lead the singing. In the end of the chancel farthest from the congregation and facing it was the altar and above the altar was an octagon pulpit, the elevation of which was so high that the preacher could be seen from every portion of the church and gallery without the use of elevated seats in the gallery. Forming a semi-circle in the chancel in front of the altar was a railing at which communicants would kneel during the distribution in Holy Communion."	"History of Quaint Old Muskego Church," Minneapolis Tribune	25-Jun-05	Minneapolis Tribune	Interior and exterior photographs
	1905	25-Jun-05	"At the close of the program those present were invited to enter the historic edifice and place an offering upon the altar. This offering will be used in defraying the expenses of over \$2,000 connected with the removal from the original to the present location. In order to preserve the logs in the old church as long as possible for coming generations it had been deemed best to protect them with new outside walls. For this reason the original walls cannot be seen from the outside, but original walls have no covering on the interior of the building and those who enter it see it in exactly the same way that the first pioneers of the Muskego settlement saw it when the first service was held in the year 1843."	"History of Quaint Old Muskego Church," Minneapolis Tribune	25-Jun-05	Minneapolis Tribune	Interior and exterior photographs
	1907		"In 1907 Rasmussen continued to plead for funds to pay off the debt which at that time was around \$1,500. It is not known if the debt was ever settled, or if it was simply absorbed into the United Church's budget."	<i>In Jesus' Name Shall All Our Work Be Done</i> , Karen Hanson. Commemorating the 150th Anniversary of Norway Evangelical Lutheran Church, Wind Lake, Wisconsin	1993	Seminary Archives	

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	1910	15-Jun-10	From the national convention: "A tract of ground has been offered (?) the present tract at the theological seminary, St. Anthony Park, provided the "old Muskego church," the oldest Norwegian church edifice in America, which was removed to the seminary grounds from southern Wisconsin, is removed from its present location to the new tract. The board of trustees has authorized to make this change of location."	"Six Hundred New Hymns for United Lutherans," Minneapolis Tribune	6/15/1910	Minneapolis Tribune	
	1916		Church records destroyed in fire	The Old Muskego Church, by Alice Stangland Kirn in Telesoga	5/1/2005	Seminary Archives	
	1917	27-May-17	Church opened again for services on new site; occasion connected with the union that formed the Norwegian Lutheran Church of America.	"First Norwegian Church in U.S. to Be Re-opened," Pioneer Press	5/27/1917	Pioneer Press	
	1921		In the southeastern corner of Waukesha county – or to be more exact, on Section 32 in the town of Muskego – stands one of the interesting landmarks of America, a landmark that should bear a bronze table, not only because of its own interesting associations, but because of the many other allied associations of a region rich in historical memories.... Here in Waukesha and Racine counties was founded, in 1839-40, the celebrated Norwegian colony of Muskego, which at one time numbered over 600 souls and in which most of the 'first things' of significant interest to the transplanted nationality originated or occurred."	"The Old Muskego Settlement," A. O. Barton, <i>The North Star</i> , v. 3, no. 7	November-December 1921	MHS	
	1921		"The present church was built in 1869. In that year the old log church was removed to the Jacobsen farm below and used as a barn and storage house, but nearly two decades ago it was purchased and removed to the campus of the Lutheran Seminary at St. Anthony Park, Minneapolis, to be preserved as a memorial of the olden time."	"The Old Muskego Settlement," A. O. Barton, <i>The North Star</i> , v. 3, no. 7	November-December 1921	MHS	

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	1921		<p>"And then in the great woods at Muskego was begun a work which is among the most inspiring ever performed among our countrymen here in the west. The first Norwegian church was built by the cooperative efforts of the old Muskego people and their friends in the old home land, who aided with their prayers and the necessary funds, while the immigrants set their strong arms to the task of getting the building materials together. It would have been a rare treat to have stood on the top of Indian Hill in that winter of 1843 and seen great oaks fall before the axes of the pioneers and be drawn by oxen to the top of the hill. One can well believe there was great activity in the woods that winter, but the work was quickly and cheerfully carried forward, because old home friends were working with them."</p>	<p>"The Old Muskego Settlement," A. O. Barton, <i>The North Star</i>, v. 3, no. 7, November-December 1921</p>	1921	MHS	
	1930		<p>"They do not see the modern lap siding on it. They do not see its machine-made shingles. They see hand-hewn red oak logs in its walls and hand-hewn slabs in its 'A' roof with the marks of the adz still in them."</p>	<p>"First Church of Norwegian Lutherans in American Stands Restored in St. Paul," St. Paul Pioneer Press</p>	2/9/1930	Pioneer Press	
	1930		<p>"Now, except for the siding on its outer walls and the shingles on its roof, it is restored here in St. Paul to its original appearance. The interior is devoid of varnish or paint. The log-faces show the business like adz strokes put there in the brown wood by the swinging hands of the Telemarken immigrants. The pillars holding up the gallery are round, chunky and of solid black walnut... The wooden pews are unpadded. Two boards, not too wide, constitute the backs. Around and beneath the entire 'U' of the gallery runs the pipe from the oblong iron stove, for the greater giving of heat."</p>	<p>"First Church of Norwegian Lutherans in American Stands Restored in St. Paul," St. Paul Pioneer Press</p>	2/9/1930	Pioneer Press	Article includes exterior photo.
	1930		<p>"All the red oak logs and one of the pillars are from the original building. The rest of the pillars were made when the church was restored, in exact duplication of the original ones in both shape and material. The pews or benches also were made when the structure was reassembled here. The stove is the one used in Muskego. It was made in 1848."</p>	<p>"First Church of Norwegian Lutherans in American Stands Restored in St. Paul," St. Paul Pioneer Press</p>	2/9/1930	Pioneer Press	

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1930		"The whole interior - just the one room - measures no more than 45 feet in length and 25 to 30 feet in width. The font is a white wash basin set on a pedestal. At the front is the altar rail, back of that and rising above it the altar, and high above all, close to the roof, the pulpit, shaped something like the front of a chariot."	"First Church of Norwegian Lutherans in American Stands Restored in St. Paul," St. Paul Pioneer Press	2/9/1930	Pioneer Press	Article includes interior photos.
	1934		Historic American Building Survey (HABS) recordation with detailed drawings and photographs.	National Register nomination	1975	SHPO files	
	1935		Old Muskego Church added to Minnesota State Historical Sites	The Old Muskego Church, by Alice Stangland Kirn in Telesoga	5/1/2005	Seminary Archives	cannot verify this
c.	1940		"This shrine for Norse Lutherans in the Northwest is a one-room structure 45 feet long and from 25 to 30 feet wide. One-third of the space is occupied by the pulpit, font and altar. The font is a white wash-basin on an unpainted pedestal. At the front of the church is seen the altar rail, the severely simple altar on which may be noted the unpretentious pewter communion set and candle sticks. Back of the altar and high above it is the pulpit, only a few feet from the ceiling, and commanding a far better view of the small balcony than the pews downstairs. In fact, during the sermon only those sitting in the front row of the pews could see the minister."	Muskego Church History manuscript	c. 1940	Seminary Archives	
c.	1940		"The round chunky pillars which hold up the gallery are of black walnut which came from a grove near Muskego. No paint or varnish is found on the hand hewn logs which form the walls and on which the adz-strokes are clearly seen. The wooden pews are unpadded, very straight and backed by two narrow boards. Present-day visitors usually make the comment that sitting quietly through the hour-long sermons of the last century must have been a test of patience for the children of that day."	Muskego Church History manuscript	c. 1940	Seminary Archives	
	1946	6/16/1946	Muskego church used in events honoring Norwegian founders when the Norwegian Lutheran Church became the Evangelical Lutheran Church.	"Meet Opens on Lutheran Campus," St. Paul Pioneer Press	6/16/1943	Pioneer Press	
	1946		"Shrine of Norwegian Lutherans today will be the small Muskego church, which was moved intact from the Muskego (sic) settlement near Milwaukee to the seminary campus here. The old log structure, entirely covered in a protective building, was built in 1843."	"Meet Opens on Lutheran Campus," St. Paul Pioneer Press	6/16/1943	Pioneer Press	

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1946	6/16/1946	"Hand-hewn benches provide the pews for the historic chapel. ... the benches near the ancient baptismal fount."	"Meet Opens on Lutheran Campus," St. Paul Pioneer Press	6/16/1943	Pioneer Press	
	1946	8/30/1946	"Reference is made to your letter of July 11, asking for advice to insure the proper care of the wood timbers in the historic Muskego Church. Since our earlier replay to this inquire we have prepared a bibliography of information pertinent to the preservation of wooden structures. A copy of the bibliography is enclosed. ... while the National Park Service does not wish to take too active a part in preservation activities when competent, commercial, technical services can be obtained locally, we are however willing to do so when satisfactory assistance cannot be insured otherwise. We shall be pleased if you will keep us posted on your efforts in the interest of preservation of this important structure."	Letter to T. F. Gullixson, President of Luther Seminary from W. G. Carnes, Acting Chief Landscape Architect, United States Department of the Interior	8/30/1946	Seminary Archives	
	1948	6/9/1948	Muskego used in connection with Evangelical Lutheran Church biennial convention in Minneapolis.	Minneapolis Star	6/9/1948	Seminary Archives	
	1954		"On state occasions, the communion ware on the altar is sterling with gold overlay, an appreciation gift from the King of Norway following his visit to this church in 1954.... Usually, though, the communion ware on the altar is pewter, in keeping with the antiquity of the church."	"Muskego Church," Minneapolis Tribune	3/4/1973	Minneapolis Tribune	
	1961		"JB saw Muskego Church 9-21-61. Chancel is narrower than rest of church. Floor is raised about 10". Six windows on each side - probably reglazed or replaced in 1904. Plank on sawhorses for seats in gallery. [descriptions of pictures] ... Stove (patented 1848 - not necessarily built then)"	Copies of note cards in SHPO files. Apparently notes from survey in 1961.	1961	SHPO files	
c.	1961		"It is built all of hewn red oak logs, hand adzed and upper log cupped over ones below.... On its removal here it was encased with wood studs and siding, which have destroyed its exterior attractiveness, but the interior is all in its original log finish."	Copies of note cards in SHPO files. Apparently notes from survey in 1961.	1961	SHPO files	
c.	1961		"To preserve structure outside walls have been furred with 2x4s and covered with clapboards. Balcony has plank seats supported on wood trestles. Exterior walls constructed of red oak logs, adzed and hand planed to about 6". Wood ceilings and floors throughout. Log walls exposed in interior. Turned logs support pulpit and altar (turned black walnut logs railings?)"	Copies of note cards in SHPO files. Apparently notes from survey in 1961.	1961	SHPO files	

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1963		"A gallery, supported by six pillars hand carved from solid black walnut, runs across the back of the church and half way along each side. On the upper level, reached by stairs at the left of the entrance, are several rows of seats made of planks over sawhorses. These makeshift benches and fourteen straight-backed pews on the main floor accommodated nearly three hundred persons."	"Muskego Church," Minnesota History	3/1/1963	MHS	see photo in article
	1963		"In the chancel the dominating features are the altar, complete with articles used in services, and the pulpit above it. Both are of walnut, as is the altar rail in front. The pulpit, which resembles the front of a chariot, is reached by stairs at the left of the altar. A faded painting at the altar represents the Last Supper."	"Muskego Church," Minnesota History	3/1/1963	MHS	see photo in article
	1963		"On either side of the chancel is a box-like pew used by the officiating minister and the precentor, who was a lay assistant in the liturgical and musical worship. In the early days the precentor had no instrumental accompaniment; now an old pump organ is used for the infrequent services. Near the box pew on the left side is the baptismal font - a plain white washbasin on a walnut pedestal."	"Muskego Church," Minnesota History	3/1/1963	MHS	
	1963		"An antique wood-burning stove, probably installed in the late 1840s, stands on the right side of the chancel. The long stovepipe stretching along the entire underside of the gallery is no longer in use, but it stands as a reminder of the method once used to circulate heat through the church."	"Muskego Church," Minnesota History	3/1/1963	MHS	
	1963		"Services are still held in the building from time to time, and it is open to the public on special occasions."	"Muskego Church," Minnesota History	3/1/1963	MHS	
	1963		Historic marker dedicated on October 11, 1963 at Luther Seminary.	Citation of St. Paul Dispatch, 10/4/1963 in note cards in SHPO files.	c. 1963	SHPO files	
	1964		"At that time [1904] the exterior was covered with protective lap siding and the interior was restored to its original appearance. The inside walls are formed by massive red oak logs fitted tightly together and planed flat. They, like the pews, altar, pulpit, railings and black walnut pillars supporting a U-shaped gallery, have never been painted and bear the marks of the adze and plane used in their construction. Simple furnishings, including a pump organ and wood-burning stove, complete the restoration."	"Historic St. Paul Buildings," H. F. Koeper, 1964	1964	MHS/SHPO files	

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	Event Year	Date	Event	Source	Source Date	Source Location	Notes/Comments
	1968		"They had no organ, and the one here has been brought in for use at an occasional service."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1968	Seminary Archives	
	1968		"The baptismal font is very simple, being a large porcelain wash basin on a home made wooden stand. The stove had the date 1848, so several winters must have passed without their having heat in the church, unless they had another stove."	Manuscript by Ernest W. Sihler, Assistant Archivist, The American Lutheran Church	1968	Seminary Archives	
	1970		Lap siding removed when it was discovered that it was causing logs to rot.	National Register nomination	1975	SHPO files	
c.	1970		"The original exterior was square-hewn logs, but sometime in the building's history it had been covered with siding as a 'modernization,' according to the Rev. Bob Komplein of Luther Seminary. The siding was brought to the campus along with the church, but it was discovered in 1970 that, rather than protecting, it was rotting the logs beneath, so it was removed."	"Muskego Church," Minneapolis Tribune	3/4/1973	Minneapolis Tribune	
c.	1970		"The pulpit is above the altar and is reached by a stairway at the left side. The little box-like pews on either side of the chancel are for the officiating minister and the precentor."	"Welcome to Old Muskego Church, " undated brochure.	Undated	SHPO files	c. 1970?
c.	1970		"Except for the outside protective covering, the church has been completely and accurately reconstructed; many of the items inside are also authentic, such as pews, books, pulpit, stove, altar and other objects."	Manuscript in SHPO site file. Note says "see T. Lutz."	Undated	SHPO files	Possibly from "St. Paul Architecture" by Zellie and Lutz
	1973		"On the main floor, the pews, though stark, plain planks, do have backs. On the balcony, which extends down each side of the sanctuary, the benches are 2x12s laid on sawhorses. On display on the balcony is the first bench used in the church, a crudely contrived thing with round wooden legs pegged into an irregularly shaped board."	"Muskego Church," Minneapolis Tribune	3/4/1973	Minneapolis Tribune	
	1973		"Fir trees that were planted around the church when it was moved to its present site, 2375 Como Ave W and Luther Pl., have grown until now they almost hide the front of the building."	"Muskego Church," Minneapolis Tribune	3/4/1973	Minneapolis Tribune	
	1973	1/8/1973	"A couple of years ago the siding was removed from the church. The picture which I enclose is not very good. I have asked that additional pictures be taken, and if they turn out well I could send you a print."	Letter to Oliver Swenumson, Sisseton SD from Seminary Administrative Secretary	1/8/1973	Seminary Archives	
	1974		Clapboard removed	Notation on back of 1970 photograph	1974	SHPO files	

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	1975		Listed in National Register of Historic Places	National Park Service	1975	SHPO files	
	1975	10/13/1975	King Olav V of Norway visits Muskego Church	"Olav Reaffirms Minnesota Most Norwegian' in Union," St. Paul Pioneer Press	10/14/1975	Pioneer Press	
	1975		Detail of front door and window repair at Muskego Church. Includes sketches of window conditions and repairs.	Single sheet in Muskego files	Spring 1975	Seminary Archives	
	1978		Designated historic site by the St. Paul Heritage Preservation Commission	St. Paul Heritage Preservation Commission			
	1993		"Possible steps in Muskego renovation/maintenance: 1) structural assessment, including foundation; 2) clean out old concrete chinking, rechalk; 3) fumigation of entire structure; 4) partial or full replacement of deteriorated logs; 5) apply water sealant; 6) add rain gutters to direct water away from foundation; 7) make the structure handicap accessible; 8) improve heating, lighting and ventilation; 9) trim/remove trees that shade the structure; 10) investigate possibility of removing interior ceiling; 11) install fire extinguisher and possibly alarm system."	Memo from Howard Ostrem, Facilities, Luther Seminary	5/4/1993	Seminary Archives	Not all items implemented in 1994 restoration project.
c.	1993		Charles Nelson, Minnesota Historical Society, referring to the volunteer work restoration efforts: "The first year [1993?] we chopped out all the old mortar, mixed new chinking and troweled it in. The second year we dug out some of the rooted [sic] logs and refaced them and consolidated them with epoxy to make them stronger. ... We did make a little bit of a compromise in the old way by adding a little bit of Portland cement and a little bit of latex grout additive to our mortar mix. The Portland cement strengthens the mortar mix, and the grout additive makes it a little more adhesive so it's easier to tool on and it sticks to the logs better."	"Amazing Grace" in <i>Log Homes Illustrated</i> , February/March 1998	1998	Seminary Archives	
	1994		Restoration undertaken by volunteers from Norway Lutheran Church, Wind Land, WI. "Church members became concerned about the condition of the log church, which is a State Historical Site and is listed on the National Register of Historic Places. A couple of them sent cash donations, which went toward new solid walnut doors, being made by Luther Seminary carpenters. The restoration work was a joint project between the seminary and Norway Lutheran."	<i>The Concord</i> , v.24, n. 4	1994	Seminary Archives	

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	1994		Restoration work. "On the exterior, workers dug out old chinking between the logs and replaced it with new, durable chinking. Some logs that had deteriorated were refaced, and repairs were made by removing dead wood. Women cleaned the church interior from top to bottom, bringing out bucket after bucket of dirty water. Overseeing the work and providing expertise was Charles Nelson of the State Historical Society."	<i>The Concord</i> , v.24, n. 4	1994	Seminary Archives	
c.	1994		"Ongoing work assisted by Minnesota Historical Society's office of historic preservation... after considerable consultation with variety of constituencies, restoration plan moved ahead with emphasis on using primary source records where available to inform care of building. In practice, this has meant a paring down to essential elements whose presence are supported by the records to the earliest period."	"Old Muskego Church Highlights," Paul Daniels, Luther Seminary Archivist	3/25/2000	Seminary Archives	
	1994	10/11/1994	Supply list for restoration project: hydrated lime, washed sand, Portland cement, liquid latex grout, liquid wood (abatron epoxy), caulk	Memo from Paul Daniels to Howard Ostrem	10/11/1994	Seminary Archives	
	1994		Volunteer work weekend for Muskego restoration undertaken by volunteers from Wind Lake church under supervision of Charlie Nelson, MHS. Focus appears to have been re-chinking exterior logs and cleaning interior. October 28-30, 1994	Letter from Paul Daniels to Donna Hanson	10/18/1994	Seminary Archives	
	1994		Walnut lumber donated by Donna Hanson for new doors. Fabricated by Seminary maintenance shop.	Letter from Paul Daniels to Donna Hanson	9/22/1994	Seminary Archives	
c.	1994		"As they worked, the volunteers found cement with some stones forced into the wall cavities. They dug these out and did epoxy consolidation and inserted new wood. Nelson explains that cement is detrimental inside the logs because it absorbs moisture and causes the logs to rot. 'The greatest challenge was removing the deteriorated wood and yet preserving the inner distinctive face of the building,' says Nelson. 'We wanted to set the brand new log in place so it wouldn't stand out like a sore thumb. We picked the appropriate log, cut it to size, set it in place, and tried to line up the same grain, even the same adzing details.' Nelson praises the Luther Seminary maintenance team for doing 'a really bang-up job of cutting and fitting.'"	"Amazing Grace" in <i>Log Homes Illustrated</i> , February/March 1998	1998	Seminary Archives	

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c.	1994		"An ironic and fortuitous coincidence gave the Muskego volunteers a supply of similar age logs for refacing and replacing. Nelson had worked on a similar restoration project on another Norwegian log church built from logs salvaged from an 1862 fort. The volunteers cut each log in half the long way, and where the exterior Muskego logs were deteriorated, they rodded the new half-logs onto the face. 'What we did,' explains Nelson, 'was drill and insert a fiberglass reinforcing rod so it's like a sandwich bolted together. You can hardly tell the difference - they have the hundred years of weathering, and they're the same species, same size and everything.'"	"Amazing Grace" in <i>Log Homes Illustrated</i> , February/March 1998	1998	Seminary Archives	
c.	1994		"The Muskego Church is the oldest log building Nelson has worked with, and he says its size is unique. 'It's not a first generation log church where the only objective was to get a roof over your head and a place to worship. This looks like it was built for long term occupancy,' he says. 'There's a sense of permanence in the construction.'"	"Amazing Grace" in <i>Log Homes Illustrated</i> , February/March 1998	1998	Seminary Archives	
c.	1994		"'It's odd that it's saddle notch with hewn construction,' Nelson says. 'Usually saddle notch is done on Lincoln log or round construction.' The logs aren't scribed but are simply straightened and laid on top of one another to interlock. There is little space between the logs, and the interior finish of the logs is done with a broadaxe and plane, according to Nelson who says exposed logs are rare on the inside of such buildings."	"Amazing Grace" in <i>Log Homes Illustrated</i> , February/March 1998	1998	Seminary Archives	
	1996		"The migrant farmers used oxen to haul white oak logs up a steep hill. Then the farmers hewed the giant trees into perfect beams. They even built a balcony inside the church, supporting it with beautifully turned red oak pillars. The rounded plain pulpit was built of black walnut, as were the heavy double doors."	"Old Muskego Church a Symbol of Norwegian Pioneer Faith," St. Paul Pioneer Press.	4/27/1996	Pioneer Press	Wood species incorrect?
	1996		"Flat pine pews line the church, and stovepipe runs along the inside walls."	"Old Muskego Church a Symbol of Norwegian Pioneer Faith," St. Paul Pioneer Press.	4/27/1996	Pioneer Press	
	2000		"Church functions as one of 3 chapels on Luther Seminary campus. Must be able to have church function not simply as 'artifact,' but as living worship setting. Raises issues of safety, access, and worship style consistent with building's original style."	"Old Muskego Church Highlights," Paul Daniels, Luther Seminary Archivist	3/25/2000	Seminary Archives	

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	2000		"Replaced altar painting of Last Supper (completely in tatters) with Hardanger work of Christian symbols - done by current Wind Lake, Wisconsin women member of the Norway Church (descendant church of Muskego)."	"Old Muskego Church Highlights," Paul Daniels, Luther Seminary Archivist	3/25/2000	Seminary Archives	
	2000		"Ongoing conversation about restoration priorities - we will not be done, since this is a process."	"Old Muskego Church Highlights," Paul Daniels, Luther Seminary Archivist	3/25/2000	Seminary Archives	
	2000		Paul Daniels: "Clearly the settlers who built Muskego superseded the building with a finer one when they were able. A log structure was not necessarily intended to be permanent. Our challenge is to move the building forward in time with as much structural and internal integrity as possible."	The Old Muskego Church, by Alice Stangland Kirn in Telesoga	5/1/2005	Seminary Archives	