WHIDBY ISLAND LODGE #15, F. & A.M., COUPEVILLE, WASHINGTON:

A HISTORIC STRUCTURES REPORT

KRISTIN GAYLE MONAHAN

WHIDBY ISLAND LODGE #15, F. & A.M., COUPEVILLE, WASHINGTON: A HISTORIC STRUCTURES REPORT

by

KRISTIN GAYLE MONAHAN

A TERMINAL PROJECT

Presented to the Historic Preservation Program
in partial fulfillment of the requirements
for the degree of
Master of Science

December 2006

"Whidby Island Lodge #15, F. & A.M., Coupeville, Washington: A Historic Structures Report," a terminal project prepared by Kristin Gayle Monahan in partial fulfillment of the requirements for the Master of Science degree in the Historic Preservation Program. This terminal project has been approved and accepted by:

_____

Donald Peting, Chair of the Examining Committee

December 11, 2006

_____

Date

Committee in Charge: Donald Peting, Chair
Dr. Leland Roth
Rob Harbour

An Abstract of the Terminal Project of

Kristin Gayle Monahan

Presented in partial fulfillment for the degree of Master of Science in the Historic Preservation Program, School of Architecture and Allied Arts.

Title: Whidby Island Lodge #15, F. & A.M., Coupeville Washington: A Historic Structures Report

Approved: _____
Donald Peting

The Temple which houses the Whidby Island Masonic Lodge #15 is a simple structure of frame construction built in Coupeville, Washington in 1874. The Lodge, founded by some of the original settlers of what has since become known as Ebey's Landing National Historical Reserve on Whidbey Island, was incorporated in 1869. Formed more than two decades before Washington was granted statehood, the Temple was built by one of its founding members, John Alexander. Over the last 132 years, the Temple has continued to serve in its original capacity, as a shelter and meeting place for members of the fraternal organization known as the Freemasons. Though modified in its original appearance, the historic structure of the building remains in tact, as do the traditions and rites practiced therein.

The purpose of this terminal project is to author a Historic Structures Report; an intricate document which will serve as a permanent and indelible record of the building and its uses, as well as a detailed history of the Temple and its members.

ACKNOWLEDGMENTS

I would like to thank my committee for their assistance in the realization of this project: thanks to Don Peting for his mentorship throughout my Graduate career, as well as for his belief in my abilities and his willingness to lend an ear; thank you to Leland Roth for his council and knowledge, and also to Rob Harbour, who did so much to help me with the logistical aspects of completing this project.

Bonnie Donaghy, Zachary Dunlap, and Annie Kidd all deserve thanks for their help in measuring and recording the Temple; and Zachary deserves special thanks for risking life and limb to climb some very tall ladders in my stead. Thanks, too, to Sue, Gary, and Briana Monahan, as well as Bonnie Donaghy and Lauren Kuei for their keen eyes in helping to edit the final product.

Much credit goes to the Janet Enzmann of the Island County Historical Society for her knowledge and for allowing me access to the Society's Archives. Many thanks also to the citizens of Coupeville such as Roger Sherman, who provided me with photographs or stories about the Temple.

This project could never have been undertaken had it not been for the unbridled enthusiasm exhibited by the Masons for the undertaking. A special thank you goes to Lynn Bailey and Douglas Jerome for their knowledge and support, as well as for granting me access to the Temple.

Finally, most special thanks goes to my family in appreciation of their abiding support and encouragement of every single one of my endeavors; without which none of this would have been possible.

"Endeavor to prepare yourself for an important part in life, eat not the bread of idleness, wear not the habiliments of sloth, let the midnight lamp find you at your studies, and the noonday sun find you reflecting on and digesting what you have read."

Isaac Neff Ebey, in a letter to his brother, Winfield.
Olympia, Oregon, April 25, 1851.

TABLE OF CONTENTS

APPENDIX

A. Scaled, Measured Drawings

B. Technical Supplements:

Chart delineating the cost effectiveness of preventative maintenance, from Stewart Brand's How Buildings Learn: What Happens After They're Built.

The Secretary of the Interior's Guidelines for Rehabilitation

The Secretary of the Interior's Standards for Rehabilitation

Preservation Brief #10: *Exterior Paint Problems on Historic Woodwork*

Preservation Brief #9: *The Repair of Historic Wood Windows*

EXECUTIVE SUMMARY

View of the Temple from the northeast. Photo, K. Monahan, 2006.

General Understandings:

The Whidby Island Lodge #15, F. & A.M.'s Temple is an important structure as a physical embodiment not only of the history of the Lodge and the tenets of Freemasonry, but the history of Whidbey Island in general. One of the ten oldest Temples in Washington State, and the oldest surviving Temple in the Puget Sound region, the structure houses a thriving contingency of approximately 250 members. Since its construction in 1874, it has been consistently used for the intentions for which it was designed, including the housing of Lodge meetings and serving as a social gathering place for members of the surrounding community. It is very rare indeed to find a communal structure which is being used by the group who originally built it in the same manner as it was used when constructed 132 years earlier. This fact is just one of the many reasons why this Temple is so very special.

Today, the Temple has the potential to serve as an early example of building design and construction on Whidbey Island, as well as to speak to the inevitable evolution of a structure over the course of its lifetime. The Temple's numerous additions speak to changing social conditions, especially the increased sense of fraternity and camaraderie that became apparent after soldiers returned home from World War II. The exponential increase in Lodge membership which resulted from this mass return alone was enough to necessitate numerous expansions and updates to the structure. The Temple serves as a physical representation

of the values and ideologies which guided the American Freemason in the late 19th and early 20th centuries, and as a result, the building must be read based on both its architectural merits and its evolving social history.

The Temple structure and building site have been analyzed based on their historic integrity and condition. The underlying historic structure of the Temple was found to be intact, though much modified in its original appearance by the installation of numerous major additions. As has been already mentioned, these additions reflect the changing membership and increased usage of the building. The additions and modifications which have occurred to the structure also reflect changes in building technologies such as the use of concrete in constructing foundations, and the discovery of exterior siding materials which were purported to be virtually maintenance free. Despite these modifications, the Temple remains in good condition visually. Preservation issues addressed by this report focus on the loss of some of the Temple's historic spatial identity which has resulted from numerous and continual modifications to the structure over its long history.

The purpose of this document then, is to serve as a management tool for the members of the Whidby Island Lodge which will help them to understand the importance of performing continual routine maintenance on the Temple order to afford its historic fabric and features some level of protection. It will also serve as a guide to help the Lodge reclaim some of the historic integrity which has been lost within the Temple, as well as to protect the structure for future generations.

Completed Research:

This document is represents the product of a terminal project undertaken in partial fulfillment of the requirements for the presentation of a Masters Degree in Historic Preservation from the University of Oregon. The scope of the project was limited to the Temple structure, though the entire building lot was considered as part of the general assessment of the site.

Five areas of research or investigation were undertaken for this project:

1. A comprehensive history of the Lodge and its Temple, which was used to provide historical and social context, as well as to inform the technical sections of the document.

2. A complete inventory of the Temple and its features, including the building site.

3. An exhaustive condition assessment of the interior and exterior elements of the Temple.

4. Documentation of the structure in the form of photographs and measured/scaled drawings (floorplans, elevations, sections, details)

5. Directives for the stabilization, operation, and rehabilitation of the building.

As necessary, technical supplements to aid in the implementation of these directives have been included in the appendix section of this document.

Major Research Findings:

At the time of this writing, the Temple is days shy of its 132nd birthday. Many of the problems delineated in the condition assessment and rehabilitation directives sections of this document are the direct result of aging and continual use, climactic impact, or the construction systems employed in the installation of the Temple's many additions.

1. The Temple is truly an architectural gem, not only in terms of its age, but in its socio-historical context, and continual use as well. It provides a strong context which will inform the interpretation of early settlement construction on Whidbey Island.

2. There were three major additions to the Temple; these occurred on the southern elevation in 1939, the eastern elevation in 1948, and the western elevation in 1954. All of these additions were installed more than 50 years ago, and as such, they are all now considered to be historic. No major modifications have been undertaken on the Temple since this time, excepting the installation of a spiral fire escape on the northern elevation in 1964.

3. The historic structure of the Temple is still intact, though it is covered by the numerous additions to the building. Key structural systems have been covered by the additions, and these systems cannot be conclusively defined without further intrusive investigation.

4. On the interior of the Temple, no original wall, ceiling, or floor finishes are readily visible, and the historic spatial configuration has been greatly expanded by the multiple additions. However, though the square footage of the interior has more than doubled, the arrangement of the various rooms follows the strictly prescribed diadems of Freemasonry which regulate how a Temple should be designed.

5. The condition of the Temple, both on the interior and exterior, is generally good. The expected issues which arise from deferred maintenance and inappropriate additions or repairs raise the most

concern.

6. Many of the additions and modifications which have been undertaken on the Temple were done with the sole aim of increasing the immediate usability of the structure. As such, most of these were done without an acknowledgement of the importance of preserving the historic integrity of the structure, and without the consultation of preservation guidelines. The loss of historic integrity to the structure due to insensitive modifications is an issue of major concern.

7. It is imperative that all future work performed on the Temple take into consideration the importance of the structure as a building important to the history of the entire community. Modifications should not be undertaken solely for the purpose of increased utility unless they are also considerate and mindful of the historic nature of the building. All future work should be undertaken with a preservation plan in mind, and should utilize a professional consultation and review process.

It is sincerely hoped that this document will be used by the Masons to reawaken themselves to the importance of this truly remarkable building, and to foster a pride of ownership which will compel them to preserve the structure for the future. It is hoped that this document will provide enough historical background, detailed analysis, and technical recommendations in order to help direct the Lodge in any future endeavors relative to the structure. The potential of the Temple greatly impressed the author and caused her to become impassioned with it as a cause. It is truly a remarkable place that merits preserving.

INTRODUCTION

Whidby Island Lodge #15, F. & A.M., Coupeville, Washington

The Masonic Temple which stands at the corner of NW 8th and Main Streets in the quiet town of Coupeville, Washington is a large, but rather unassuming structure. Rectilinear in form, and featuring a steeply pitched, east-west facing gable roof, the exterior of the Temple is plain and simple, the only ornamentation being contained in the few Masonic emblems which grace the exterior facades, and in four large, fluted Doric columns which support the Temple's projecting second story on its eastern elevation. Clad in asbestos shingles, the Temple appears as a hodge-podge of architectural elements; it has the air of a mid-twentieth century structure with classical and utilitarian elements sprinkled in. What is not readily apparent from the exterior is the true history of the structure; that it is in fact a product of the last decades of the *nineteenth* century, a sleeping behemoth rich in history just waiting to be revealed.

The Whidby Island Lodge #15 was formed as a chapter of the fraternal organization known as the Freemasons on July 22, 1869, chartered under dispensation of the Grand Lodge of Washington Territory (under the jurisdiction of the Willamette Lodge #11 in Oregon), a full twenty years before Washington was granted statehood.[1] Today, it is the oldest surviving Lodge in the Puget Sound region, and it is among the ten oldest Lodges in the State. Nine Master Masons, most of who were from amongst the first families to settle on Whidbey Island in the 1850's, organized to form the Lodge, and in 1874, they set about building a Temple in which they could practice their centuries old craft. Constructed by one of the Lodge founders John S. Alexander, Jr., the Masonic Temple has stood now for almost 132 years, and it still serves as the meeting place for the brethren of this fraternal organization.

Over the course of almost a century and a half of use, the Masonic Temple which houses the Whidby Island Lodge has undergone dramatic and drastic changes to both its form and materials. Numerous additions have been made to the structure, which given their age, are all historic in their own right, and innumerable changes have occurred to the exterior and interior finishes and decorative elements. These changes were largely informed by a growing and enlivened membership, which

necessitated spatial changes to the structure. This trend continues today, as the Lodge now boasts approximately 250 members. Despite the modifications which resulted from the membership boom, the structure of the Temple itself remains intact, and probing study reveals a wealth of information on the history, people, and uses of this building. Given its long history, the period of significance for the structure is also long, beginning with the Temple's construction in 1874, and continuing through the last major addition, which occurred on the western elevation in 1954.

The purpose of this Historic Structures Report is to utilize the modern theories and technologies of historic preservation to reveal the rich architectural, social, and political history of the Whidby Island Lodge #15. Historical research on the development of Freemasonry in America, its doctrine, symbols, and architecture, helped to place the Temple within the larger context of Freemasonry as an ideological fraternal movement; while a detailed account of the architectural and social history of the Lodge itself was used to place the Temple within the larger context of the physical environment in which it is located.

Balancing the conceptual portions of this document are the technical chapters, which include an exhaustive condition assessment, as well as rehabilitation directives and measured drawings of the Temple as it stands today. It is sincerely hoped that this document will be utilized as a whole in order to understand the history of the Temple as a ways and means of preserving it for the future. This project does not seek to fully restore the Temple to its 19th century appearance, but rather to find a way to amicably blend the history inherent in the structure with the real need to adapt it to the ever changing needs of its long-time caretakers. It is hoped that the result will be a harmonious one; one which once again imbibes the Temple with a sense of history and purpose, while at the same time being understanding of history as a continuum, an ever changing entity.

What's in a name?

When reading through this document, one is bound to notice the varied spellings of the word "Whidbey." These variations are not born of error, but rather of changing trends in nomenclature.

Called Tscga-kole-chy by the Native Skagit peoples who identified this island as their home for 10,000 years before the arrival of the first

European settlers, Whidbey Island was named after Joseph Whidbey, Master on the HMS *Discovery*, an English vessel captained by George Vancouver. In the 1790's, the *Discovery* and her crew were sent on an expedition from England to explore the area of the Pacific Coast which is now known as the Puget Sound. After setting off on his own to explore the area, Joseph Whidbey first discovered Deception Pass, and by proxy, the second largest island in the continental United States. Thrilled by the discovery, he rushed back to inform Captain Vancouver, who honored him by naming the land mass Whidbey Island.[2]

Over the years, Whidbey Island has been known by a number of different variations including Whidbey's Island, under which it was officially charted, Whidbey's Island, Whidby Island, and Whidbey Island, which it is known as today.[3] When the Whidby Island Lodge #15 in Coupeville was chartered in 1869, the current spelling of the name of the Island did not include the "e." Consequently, the Lodge still uses the historic spelling to this day. It must be noted, however, that this steadfast resolve is not merely an unwillingness to conform to modern standards, but rather one of necessity. In order to officially list themselves as "*Whidbey* Island Lodge #15," the Masons would literally have to re-write their charter; in effect, forming a new Lodge.

Due to this quirk in nomenclature, all references in the following pages to Whidbey Island as a physical location will be written using the modern spelling, while all direct references to the Lodge or its Temple will use the historic spelling. Also, all references to the "Lodge" should be interpreted as meaning the members of the organization, while those references to the "Temple" will indicate a discussion of the building which houses them. This is done for accuracy and clarity, as well as out of respect to the members of the Whidby Island Lodge #15, who have been so enthusiastic and supportive of this undertaking.

Notes

[1] Kellogg, George A., A History of Whidbey's Island, (Coupeville, Washington: Island County Historical Society, 2002), p. 2.

[2] Grand Lodge of Washington Territory, Dispensation Letter to form Whidby Island Lodge #15, 22 July 1869.

[3] Daryl C. McClary, "Island County—Thumbnail History," HistoryLink.org, Essay #7523, 14 November, 2005, Internet On-line, available from http://www.historylink.org/essays/output.cfm?file_id=7523, accessed 08 August, 2006.

IMPORTANT MASONIC TERMS AND SYMBOLS

Photo, Kristin Monahan, 2006.

ABIF: A Hebrew word signifying a title of honor. This title was given to the Tyrian builder Hiram, who constructed King Solomon's Temple.[1]

AFFILIATION: A word which designates a Mason as being a member of a particular Lodge.

ARCHITECTURE: A fine art which differs from the other fine arts in that (1) it is based on utility, and (2), that it elevates mathematical laws to the rules of beauty, correct proportion, and perfect symmetry.[2]

BLUE: The great color of Freemasonry, blue is the color of the heavens, and therefore stands as an emblem of universal friendship and benevolence, traits which should be as extensive in a Mason as heaven itself. "It is therefore the only color, except white, which should be used in a Master Mason's [Temple]."[3]

BROTHER: This is the term with which fellow Masons always address one another while in the Temple.

CANDIDATE: A candidate is a person who is seeking membership or affiliation in a Lodge. Before he is accepted, his moral and social character will be verified.

CHARTER: A document issued by a Grand Lodge to a certain number of individuals, which empowers them to organize a Lodge and confer degrees.

COMPASS: One of the major symbols of Freemasonry, the compass represents amiable conduct, benevolent feeling, and charitable action, things which a Mason must perpetually strive to achieve.[4]

DEGREES: There are three degrees which are attainable in Freemasonry, these being (1) Entered Apprentice, (2) Fellow Craft, and (3) Master Mason.

DEMIT: When a Mason severs all connection with either a particular Lodge or Freemasonry in general, he is said to have received a demit.

DORIC: "The Doric is the second of the five orders of architecture...It is the most natural and best proportioned of all the orders; all its parts being founded on the natural position of solid bodies."[5]

EAST: In Freemasonry, the east is considered to be a place of knowledge and light. The Master sits in the east to open the Lodge, symbolizing the rising sun, which opens the day.

EASTERN STAR, ORDER OF THE: An adoptive system of Freemasonry for Women. It was introduced into the United States in 1778. The system's obligations are based upon female honor, as well as the principles of equality and justice. Those entitled to receive the degrees are the wives, widows, sisters, and daughters of Master Masons.[6]

F. & A.M.: This acronym stands for "Free and Accepted Masons." Some Lodges use this designation, while others use A.F. & A.M., which stands for "Ancient Free and Accepted Masons." This discrepancy arose in the 1750's, when a Lodge of Irishmen living in London rejected the first Grand Lodge, formed in 1717, and formed their own Grand Lodge. These men claimed that the English Grand Lodge was following a "modern" interpretation of Freemasonry, while their own Lodge followed the "ancient" traditions of the craft. Hence, Lodges which operate following the doctrines of the original Grand Lodge of London are known as "F. & A.M.," while those following that of the Irish Grand Lodge are known as "A.F. & A.M."[6]

FORM OF THE LODGE: (Quoted from Robert Macoy's A Dictionary of Freemasonry) " The form of a Masonic [Temple] is said to be a parallelogram or oblong square- its length being from East to West- its breadth from North to South. A square, circle, a triangle, or any other form but that of an oblong square, would be eminently incorrect and unmasonic, because such a figure would not be an expression of the symbolic idea which is intended to be conveyed. At the Solomonic Era- the era of the building of the Temple at Jerusalem- the world, it must be remembered, was supposed to have that very oblong form, which has here been symbolized."[8]

G: This letter is the most sacred of the Masonic symbols, used as it is as a symbol of the Diety, as well as of Geometry. To the Masons, God and Geometry symbolize both the spiritual realm and the material world, or Heaven and Earth.

GOD: "The highest and most perfect intelligence in which all things exist, and from which all things depend."[9]

JEWELS: The Lodge and its Temple are furnished with three moveable and three immovable jewels. The immovable jewels are the square, level, and plumb, and these must never be removed from their proper place in the Temple. They belong to the principle officers and chairs of the Lodge; the Master, Senior Warden, and Junior Warden, respectively. The moveable jewels are the rough and perfect ashlars and the trestleboard.[9]

JUNIOR WARDEN: The Junior Warden, along with the Master and Senior Warden, is one of the chief officers of the Lodge. His job is primarily to insure the Lodge's security by preventing unqualified visitors to enter.

LODGE: A group of Masons who have been granted a charter allowing them to meet and confer degrees by a Grand Lodge.

MASTER: The presiding officer in a Lodge of Freemasons. The duties of a Master include (1) assembling his Lodge, (2) presiding over the Lodge, (3) regulating the admission of visitors, (4) controlling all discussions in Lodge meetings, and (5) to appoint committees, among others. The jewel of the Master is the Square.

MINUTES: Detailed records of the proceedings of each Lodge meeting.

NORTH: A place of darkness. Accordingly, no officers of the Lodge are stationed in the north of the Temple. The north symbolizes those who are uninitiated.

PERFECT ASHLAR: A stone which is perfectly square, and can only be tried by the square and compasses. The perfect ashlar represents the man after he has attained the degree of Master Mason.

PLUMB: The plumb reminds the Mason to follow the straight path of virtue and honor to all of his life's endeavors.

ROUGH ASHLAR: A rectangular stone with roughened edges and surfaces, the rough ashlar symbolizes the state of a man's soul before he becomes a Mason.

SENIOR WARDEN: The Senior Warden's job is to serve in the place of the Master should he be incapacitated or unavailable.

SOLOMON: Jewish King during the golden era of the Hebrews. He built the Temple upon which many of the symbols of Freemasonry are based.

SOLOMON'S TEMPLE: " This is the most important as a symbol to a Freemason, for in its time it was considered as the most regular and

most magnificent building."[11]

SOUTH: The south is important in Freemasonry, as the sun's path follows from the east to the south, and eventually the west.

SQUARE: The square is a symbol which reminds the Mason to keep his mind and body at all times within their proper limits.

SQUARE AND COMPASS: "The square and compasses surrounding the letter 'G' form the standard emblem of Freemasonry. The square teaches Masons to be honest and true in their actions. The compasses teach Masons to circumscribe their desires and act in moderation. The 'G' represents geometry and is the initial for the name of Diety. Just as geometry is central to an understanding of the physical world, so is God central to Mason's lives."[12]

TEMPLE: The structure erected by Masons as a meeting place for their Lodge.

TWIN PILLARS: Ornamental elements within the Temple which represent the two pillars of King Solomon's Temple. These are set at the entrance to the Temple (or in this case, the entrance to the Lodge Room), and represent Jachin, or the pillar of the cloud, and Boaz, or the pillar of fire.[13]

TYLER: Along with the Junior Warden, it is the Tyler's job to prevent any unauthorized visitors from entering the Lodge meetings. He stands outside the entrance to the Lodge Room with a sword in hand and verifies the credentials of each visitor before granting them entrance.

WEST: The west symbolizes the setting of the sun and the arrival of night. As such, a Mason enters from the west and crosses to the east, symbolically raising himself from darkness to light.

Notes

[1] Macoy, Robert, A Dictionary of Freemasonry, (New York: Grammercy Books, 1989), p. 74.

[2] Ibid, p. 90.

[3] Ibid, p. 237.

[4] Ibid, p. 468.

[5] Ibid, p. 491.

[6] Tabbert, Mark A., American Freemasons: Three Centuries of Building Communities, (New York: New York University Press, 2005), p. 27.

[7] Macoy, p. 123.

[8] Ibid, p. 145.

[9] Ibid, p. 155.

[10] Ibid, p. 672.

[11] Ibid, p. 182.

[12] Tabbert, p. 1.

[13] Macoy, p. 616.

CHAPTER I

WHIDBY ISLAND LODGE #15, THE LAND, THE TEMPLE, ITS HISTORY, AND ITS MEMBERS

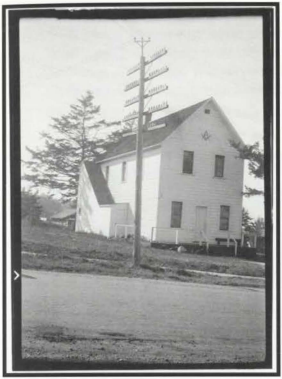


Figure 1: HABS photograph of the southeastern elevation of the Temple circa 1936

Figure 2: Eastern elevation of Temple circa 2006.

Whidby Island Lodge #15, F. & A.M, was established in Coupeville, Washington in 1869. In that year, nine Master Masons who had settled in the area of Whidbey Island in the preceding two decades joined together and petitioned the Grand Lodge of Washington Territory to issue them a charter. The charter being granted, the Lodge constructed a Temple in which to practice its ancient and honored craft in 1874. The Temple which these men built as a meeting house and physical symbol of the tenets of the fraternal organization known as Freemasonry still stands today on the corner of Eighth and Main Streets, though much modified in its original appearance. Careful study of the structure and its history unveils a story which goes beyond the Masonic craft and speaks to the founding of Whidbey Island, of pioneers, sea captains, and societal influence on architectural expression. This is the story of the Whidby Island Lodge.

The Land and the People

In the opening pages of his short yet rich pamphlet describing the history of Whidby Island Lodge #15, Frank C. Coates makes the following observation:

> This was new country. Population was scanty as the first settlers had come barely eighteen years earlier. Settlers in a new country are always a sturdy and adventurous people. The first ones are most usually from the better classes and in this case there was a considerable number of Masons.[1]

This "new country" was the Pacific Northwest, namely the large land mass in the Puget Sound which was known as Whidbey Island. Named by George Vancouver for the Master of his ship, HMS *Discovery* in 1792, Whidbey Island was a breathtakingly beautiful land rich in agricultural resources, and free from the scars of capitalization or industry.

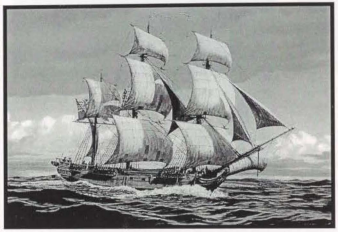


***Figure 3:** HMS Discovery. This ship, Captained by George Vancouver, had Joseph Whidbey as its Sailing Master. Whidbey dicovered the Island which bears his name in 1792.*

Used by the native Salish and Skagit peoples for thousands of years, the prairie lands of Whidbey Island had already been cleared of timber by burning, and so were readied for the growth of food and fiber plants, as well as to provide forage for game animals (figures 4 & 5, next page).[2] This land was ripe in opportunity for the adventurous white settlers who had begun to explore the Puget Sound Region in the first half of the nineteenth-century. One such man, Thomas W. Glasgow, was the first white person who attempted to settle on the Island, claiming a plot of land in almost the exact location on which Colonel Isaac Neff Ebey would settle a few years later.

Arriving in the spring of 1848, Glasgow staked a claim in the rich prairie lands abutting the Puget Sound on the Western coast of Central Whidbey Island. Here, Glasgow built a cabin and began to plant potatoes, peas, and wheat. He took a Native American wife, whom he called Julia Pat-Ke-Nim. Scholars posit that Glasgow's marriage was partially for companionship, and partially to afford him some measure of protection against violence by the Native Americans. Even with his

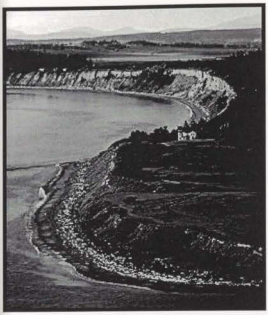


Figure 4: The rich prairie lands of central Whidbey Island, as seen from the south end of Penn's Cove.

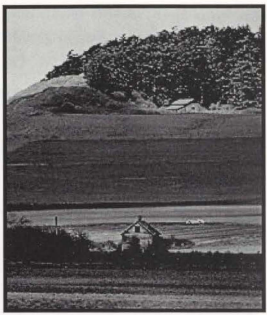


Figure 5: The fertile belt of land on Ebey's Prairie was perhaps the major determining factor for settlement in this area in the 1850's.

security measures, however, Glasgow's settlement was to be short-lived. Determined to drive the white settler from his claim, thousands of Native Americans representing every tribe in the Puget Sound Region, including the Chehalis, Nisqually, Snohomish, Snoqualmie, and Duwamish peoples, arrived on the shores of Whidbey Island and set up camp in Penn Cove. One of Glasgow's companions, Antonio B. Rabbeson, remarked that there were "about eight thousand of these wild men."[3] On the third day of their encampment, the tribes held a meeting and invited Glasgow and his compatriots to attend. At this meeting, numerous leaders spoke of unifying the tribes in order to attack the three encampments of white settlers on the Puget Sound (Tumwater, Fort Nisqually, and Cowlitz Farm) and drive the "King George men" (British) from their land. That night, Glasgow's wife learned of a plot by the chief of the Snohomish Peoples, to kill her husband and his friends. Informed of the immanent threat to their lives, the group clandestinely abandoned their claim and stole away in the night.[4]

Despite threats from Native American tribes who were understandably upset by the encroachment of white settlers on their ancestral lands, explorers and adventurous men continued to scout the Puget Sound with a mind on establishing claims. The Oregon land bill, otherwise known as the Donation Land Claim Act, which was passed by Congress on September 27, 1850 made the drive towards settlement too hard to resist, as it guaranteed every settler free land regardless of

sex, and with very few stipulations. It was under this Act that Isaac Neff Ebey, the first permanent settler on Whidbey Island, arrived in the "new country" and staked his claim.[5]

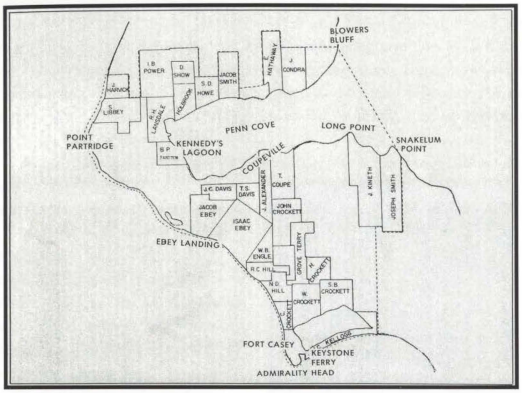


Figure 6: Donation Land Claim Map 1850-1855.

The Donation Claim Land Act guaranteed each settler 320 acres of un-platted land if they were single, and 640 acres if married. Since the land was not platted, the newcomers were free to claim their land wherever they pleased. As such, Isaac Ebey arrived on the Island and staked his claim on October 15, 1850, cutting a 640 acre swath diagonally across the most fertile land of the open prairie. Under the Act, first-class claims were granted to those settlers who had come to Washington Territory before September of 1850, but who had not staked a claim until after the Land Claim Act was passed. Consequently, those settlers who held first-class claims in addition to Isaac Ebey were William Hastie, John Kineth, Isaac Power, Richard Lansdale, John Condra, Joseph Smith, and Samuel Crockett. The Donation Land Claim Act expired on December 2, 1855, by which time fifty-seven claims had been filed on Whidbey Island.[6]

Early Pioneers

The early pioneers of Whidbey Island found themselves in a wholly new country in the middle decades of the nineteenth century. Washington Territory had not even been created when the earliest settlers arrived on Whidbey Island in 1850 and 1851, it being considered part of Oregon until the territory was officially designated on March 2, 1853.[7] Everywhere they went, they were creating anew. Here they settled an Island and a region, established a town, and formed a county. These early pioneers would be the catalyst for social, political, and architectural change for centuries to come.

While many settlers availed themself of the opportunity afforded them by the Donation Land Claim Act of 1850, not all of them stayed on to become permanent settlers of the Island. According to the extensive diaries of Isaac Ebey and his wife Rebecca, the families who had become permanent residents of the Island by 1853 included the Ebey's, Davis' (Rebecca Ebey's family), Crockett's, Alexander's, Lansdale's, Bonswell's, and Smith's (2 families), as well as a number of bachelors. The diary entry of Rebecca Ebey dated February 21, 1853 states that the population numbered six families and fifteen children, as well as eighteen bachelors or youths.[8] Of these six original Pioneer families, half would have a strong and lasting affiliation with the Whidby Island Masonic Lodge #15, the members of two would actually petition for the Lodge's formation, and one in particular served as the Lodge's builder. Those families of particular importance to the history of the Lodge and the history of Whidbey Island were the Ebey's, the Crockett's, and the Alexander's.

Figure 7: *Colonel Isaac Neff Ebey, the first permanent white settler on Whidbey Island.*

The Ebey Family

After becoming the first permanent settler on Whidbey Island under the Donation Claim Land Act in October, 1850, Isaac Neff Ebey immediately began to build a home, plant crops, and make preparations for the eminent arrival of his family from Missouri on the rich loam of prairie which he had claimed on the western shore of Central Whidbey Island (see claim map, page 18). Born outside of Columbus, Ohio in 1818, Ebey was an industrious and adventurous young man. In 1849 he, along with others, purchased the brig *Orbit* and began to charter the Puget Sound in search of a suitable place to make his home.[9] In his short life, Isaac Ebey served as a military leader in the Indian War of 1855-56[10], mined in California, worked as a customs collector, practiced law, farmed, and served as a politician.[11] Ebey had a hand in the legislative business of Washington Territory, including involvement in the formation of Jefferson, King, Pierce, and Island Counties, of which the latter included Whidbey Island. In her February 1, 1853 diary entry, his wife Rebecca speaks joyfully of the news from Olympia that Island County had been formed.[12] Once established on Whidbey Island, Ebey and his family brought as much distinction to their new homeland as they had to all their previous endeavors, the end result being the naming of the area which they settled as Ebey's Landing; now a National Historical Reserve.

Rebecca Ebey headed westward from Missouri with the couple's two children, Eason Benton and Jacob Ellison (called Ellison), as well as her family, the Davis', via emigrant train in 1852. By March of that year, the families had arrived in Olympia, from whence they were transported by scow to Whidbey Island, being settled by the middle of the month.[13] Isaac's brother, Winfield Scott Ebey, had served as guardian to his brother's family in his absence, yet remained behind when Rebecca and the children went to join Isaac in 1852. Winfield would emigrate to the Island in 1854 with six other Ebey's, including Isaac's parents, Jacob and Sarah, his two sisters Ruth and Mary, and his niece and nephew, Almyra and Polk. The descendants of Mary (Ebey) Bozarth still inhabit the Puget Sound region to this day.[14]

Had not tragedy intervened, the Ebey contingency on Whidbey Island would certainly be much stronger today. By 1866, nearly all of the Ebey's who had settled the Island and leant their name to the area had died unexpectedly or tragically, including Isaac. Jacob and Sarah

died in 1862 and 1859, respectively. Ruth, who was deaf and dumb, passed on unexpectedly after falling off of a bluff in San de Fuca while gathering berries. Winfield, after the loss of his parents and brother, moved to Petaluma, California, where he died of consumption at the age of 33 in 1865 (he is buried in Sunnyside Cemetery on Whidbey Island). Rebecca, Isaac's beloved wife, died shortly after giving birth to their third child, Sarah Harriet (Hattie) in 1853, after a prolonged bout with tuberculosis.[15] Hattie herself never grew to adulthood, dying in the custody of a guardian at the age of 7. Isaac himself was not immune to the tragedy his family seemed to suffer so unduly, and his death was perhaps the most bizarre of them all.

The mid-1850's was a time of great trepidation between the white settlers of the Island and the Native inhabitants of the same. A number of blockhouses were even erected to protect the pioneer families from attack by the Native tribes. In 1856, the US warship *Massachusetts* was responsible for an attack which led to the death of 27 Kake tribesmen from Sitka, Alaska, that were camped in Port Gamble. Of the casualties, one "tyee" or chief was slain. In 1857, the Kake returned to Whidbey Island with the aim of slaying a white "tyee" in retaliation for the deaths of their own fallen brethren. After their first target, a Dr. Kellogg, was not home, the tribe went to the home of the next best tyee, who happened to be Isaac Ebey. On the night of August 11, 1857, Isaac Ebey was shot and beheaded, making him the only white casualty of the Indian Wars.[16]

While the Ebey family suffered so much tragedy, those that did live went on to be involved in many great things on the Island, including the Whidby Island Masonic Lodge #15. Eason Benton Ebey, the eldest son of Isaac and Rebecca went on to become a member of the Lodge, petitioning for the degrees in 1874, the year the Temple was constructed.[17] It is well known that Winfield Scott and Isaac Ebey were also Masons, Winfield's tombstone proudly bearing the Masonic Emblem of the Square and Compasses. It can only be assumed that, had they lived, they too would have supported the formation of a Lodge on their new homeland, and petitioned to become members. The Ebey's good friends from Missouri, the Crockett's would have an even more profound impact on the Whidbey Island Lodge than their tragedy plagued neighbors.

The Crockett Family

Colonel Walter Crockett, Sr. was born in January 1786 on the upper Roanoke River in Virginia. Like many of the early settlers of Ebey's Landing, Crockett came from an upstanding East Coast family who had distinguished themselves within their community. Jimmie Jean Cook, one of the founding members of the Island County Historical Society and author of many local histories, had this to say about the family: "The lineal representatives of some of the distinguished members of the Atlantic states have been the builders of our own communities. Such was Colonel Crockett, a member of an old Virginia family that moved west to settle in the early days of the Revolutionary War."[18]

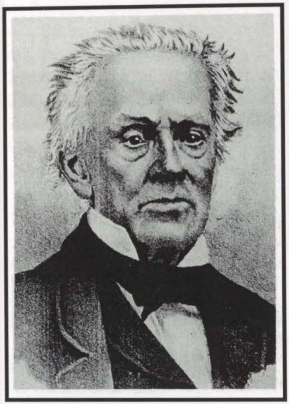


Figure 8: Colonel Walter Crockett, Sr., patriarch of the Crockett family.

Colonel Crockett distinguished himself both militarily and politically, by serving in the War of 1812 under the command of Captain Floyd, who later became Governor of Virginia, and as a member of the Virginia legislature, where he helped to place Andrew Jackson (a fellow Mason) in the office of the President. Walter's wife, Mary Black Ross, was also from a prominent Virginia family, her father being the founder of the city of Blacksburg.[19]

Despite his military and political success in Virginia, Colonel Crockett grew weary of life on the east coast, and so began his family's western migration in 1838. Their first stop was Boone County, Missouri, after which they moved to Putnam County, Missouri. During these years spent in Missouri, the family met and became close with Isaac Ebey and his family.

Walter and Mary's eldest son, Samuel had headed west on his own in 1844, arriving just in time to join the first migration train to the Puget Sound.[20] In October of the next year, Samuel joined a small band of émigrés led by Michael Troutman Simmons, and together

they formed one of the first American settlements in the Puget Sound region in Tumwater, just outside of present day Olympia.[21] Immediately smitten with his new home, Samuel wrote a glowing letter to his father in Missouri, raving about this beautiful new country. Partly due to Samuel's fulsome accounts, the Colonel decided to move the rest of his family to the Sound and, along with Rebecca Ebey, her two sons, and her brother, Thomas Davis, the party landed on Whidbey Island in March of 1852.[22] Once on the Island, the Colonel was joined from Tumwater by Samuel, and the pair, along with sons John, Hugh, and Charles each took up a claim.

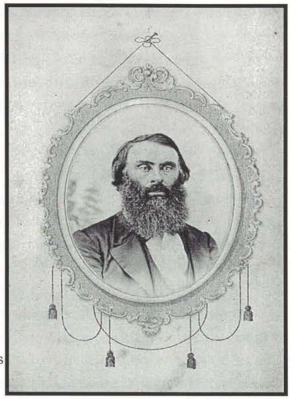


Figure 9: *Samuel Black Crockett, circa 1865. His spirited accounts of the Puget Sound prompted his family to emigrate there.*

Like the Ebey's, the Crockett's had a rather large contingency of family members on the Island in the early days of settlement. Walter's son John, who came with his father to the Island, brought with him his wife Ann (nee Crockett, a distant relative from Kentucky), and their son, Samuel D. Over the course of the next 15 years, John and Ann would have nine more children; William, Sarah Frances, Susan Mary, Georgia Ann, Emma, Elizabeth Ellen, Jane de Vane, John Harvey, and Margaret. The only other child of Walter and Mary to have children was Susanna, and she adopted.[23] The Crockett's, the Ebey's, and the Alexander's all formed a very close-knit contingency in the early days of settlement on the Island. Rebecca Ebey's diary makes frequent mention of daily interactions with both families, including Hugh Crockett's frequent visits for dinner, communal house raisings with all three families, and John Crockett's daughter Susan's

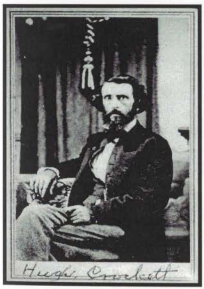


Figure 10: *Hugh Crockett, son of Walter, and founding member of Whidby Island Lodge #15.*

apparent enamor with her own sons, Eason and Ellison. This sense of community and camaraderie would continue through the years, even in the establishment of the new Masonic Lodge. Hugh Crockett and John Alexander would both petition for the formation of the Lodge, and Hugh's brother, Walter Jr., and Nephew, William (John and Ann's son), would both affiliate.[24] All of these men would also go on to hold positions of high esteem within the Masonic organization.

The Alexander Family

John Alexander, Sr. was born in October 1805 in Ireland, and at an early age, he immigrated to Canada. His wife, Frances Sharp, 13 years his junior, was also born in Ireland, and she immigrated to Canada in 1822 at the age of three. The couple married in 1833, when Frances was just 14. In 1851, they immigrated once again, this time to Peoria, Illinois.[25] Alexander's family was among the first to catch the fever for westward expansion and migrate to Whidbey Island, and they are frequently mentioned in the diary entries of Isaac and Rebecca Ebey. John and Frances came to the Island with their two sons, William, and John Jr. It was be the younger John Alexander who, along with Hugh Crockett, petitioned for the formation of the Lodge, and who received the commission to actually build the Temple.

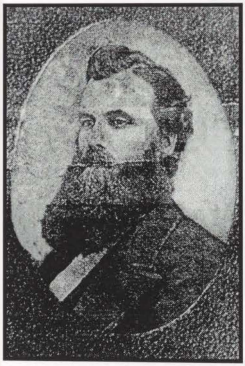


Figure 11: John Sharp Alexander, Jr., founding member of Whidby Island Lodge #15, and builder of its Temple.

The Alexander's arrived on Whidbey Island on June 22, 1852 and staked their claim. Shortly after their arrival, their third son, Abram Lansdale Alexander, was born; and he had the distinction of being the first white male born in the Puget Sound, and the third white child born on Whidbey Island.[26] Unlike the Ebey's and the Crockett's, the Alexander's did not choose to settle on the high open prairies, but rather on the lower lands which abutted Penn Cove on the eastern part of the Island. Upon their arrival, there were only three other families settled in this portion of the Island, those being Dr.

Richard Lansdale and his family, Captain Lovejoy and his family, and the Coupe's, led by Captain Thomas Coupe, for whom this entire area was named Coupeville. Interestingly, Captain Coupe's Daughter Sara married Thomas Cranney, another early pioneer who was a petitioner/founder of the Whidbey Island Lodge and who served as its first Secretary.[27]

John Alexander Sr. was known as a skilled craftsman and carpenter, talents which would be inherited by his son, John Jr. The Alexander's lived with Thomas Davis, Rebecca Ebey's brother, while John Sr. was working to craft the first of two houses he built for his family. In February of 1853, this was finished, and on April 4th, the home served to house the first meeting of the newly elected Island County Commissioners, of which John Alexander and John Crockett, among others, were members.[28] It was at this meeting that Isaac Ebey, Daniel Show, and Samuel Crockett were appointed to lay out a road from Ebey's Landing to Coveland along the western shore of the Island; and where Hugh Crockett was made the Island's first sheriff. The second house built by Alexander was raised with the assistance of Colonel Ebey and Samuel Crockett, and it stood on the plot of land which is now occupied by the Island county Historical Society and the Alexander Blockhouse.[29]

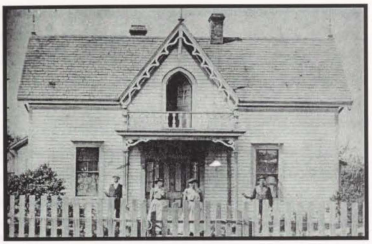


Figure 12: *Joseph B. Libbey House, built 1870 by John Alexander, Jr. Photo circa 1890.*

Figure 13: *Libbey House as it appears today.*

On December 9, 1858, John Alexander Sr. died, and was buried in a casket which was hollowed out of a cedar log by his sons and some Native American friends. Following his father's death, John Jr. went on

to marry Annie Lanning in December of 1869[30], and to have a successful career as a carpenter and saloon owner.[31] Alexander worked on many buildings in the town of Coupeville and within Ebey's Landing, including the Libbey House (see figures 12 &13, previous page), which he built in 1870, and the Temple for the Whidby Island Lodge.[32]

The formation of the Whidby Island Lodge was a long process, and required the combined efforts of many people, some of whom have been described on the preceding pages of this story. It is doubtful that, in such a new place with so few established traditions, a Lodge could have ever been formed so early on had it not been for the sense of camaraderie and shared history that was exhibited by the earliest settlers of Whidbey Island. Fraternity, Loyalty, and Charity being some of the hallmark tenets of Freemasonry, the early pioneers of Whidbey Island who had already demonstrated these qualities during their settlement were ideally suited to apply these affectations towards the formation of something much larger than themselves; the Whidby Island Lodge was the result.

1869: A Lodge is Forged

Figure 14: Daniel Pearson

Figure 15: John Alexander, Jr.

Figure 16: Thomas Cranney

In the months and years before the establishment of Whidby Island Lodge #15, F. & A.M. in Coupeville, the closest Lodge to the new settlers of the Island was in Port Townsend; a Lodge which could only be approached by a dangerous, and often impossible trip via canoe across the heavy seas of the Straits of Juan de Fuca.[33] Given the distance and danger inherent in attending such a Lodge, it is unsurprising that many of its members who lived on Whidbey Island wanted a Lodge of their own. As they had already conquered the Island and shaped it according to their will, it is only logical that they would want to create a wholly new

Lodge and infuse it with their pioneer spirit.

In June of 1869, Port Townsend Lodge #6 received a petition from nine of its members asking for their recommendation and support to the Grand Lodge of Washington Territory for the formation of a new Lodge in Coupeville, on Whidbey Island. The Port Townsend Lodge agreed, and on June 24th, both the Lodge, and the petitioners sent letters to the Grand Lodge in Olympia requesting dispensation.[34] The nine men who petitioned the Grand Lodge were all Master Masons of high regard, seven of whom were members of Port Townsend #6; their names were listed as follows:

Colonel Granville O. Haller, Past Master, Port Townsend
Herbert Patterson, Past Master, Tualitan [sic]
Thomas Cranney, Master Mason, Port Townsend
John Alexander, Master Mason, Port Townsend
Jonathan Mitchell, Master Mason, Port Townsend
Henry E. Morgan, Master Mason, Port Townsend
Hugh Crockett, Master Mason, Port Townsend
Hiram W. Harmon, Master Mason, Port Townsend
Daniel Pearson, Master Mason, No Affiliation[35]

Figure 17: Colonel Granville Owen Haller, founding member of Whidby Island Lodge #15, and its first Master.

Colonel Granville O. Haller fought in both the Indian and Civil Wars, serving in New York, Arkansas, Florida, Louisiana, Texas, Mexico, and finally Washington Territory, where he arrived at Columbia Barracks in 1853. Before coming to settle on Whidbey Island, Haller was also stationed at Fort Dalles, Oregon and Fort Townsend, where he was stationed until 1860. In 1866, his wife Henrietta initiated the purchase of ½ acre of land from Captain Thomas Coupe's Donation Land Claim for $1, as well as $1250 for stock in the store which was previously built on the property. Haller, never one to miss an opportunity, relocated to Coupeville, enlarged the house of the previous land owner, and set up shop.[36] While the records are not clear on what type of "store" Haller ran, it seems as though he was more in the business of making loans rather than of selling goods. A master of self-aggrandizement, Haller bespoke of his capital undertaking by saying,

> [I] did more, perhaps than any other citizen in that vicinity, to enable settlers who had only their robust health and brawny arms to support themselves and families while clearing off public lands for homes, to remain on their claims and improve them from year to year until they had the means to pay...[37]

While Haller was arrogant, and by all accounts, impetuous, he was a strong willed, upstanding, and prominent figure in this newly developing society. He had served as the first Worshipful Master of the Port Townsend Lodge, and his clout made him the ideal candidate to serve as the Worshipful Master of the new Lodge as well. It would not be long before this designation became official. Dispensation of permission to form the new Lodge was granted, and on July 22, 1869, six of the aforementioned petitioners and eight visitors met to officially organize Whidby Island Lodge #15, F. & A.M.[38]

The dispensation for Whidby Island Lodge was granted by Benjamine E. Lombard, Grand Master of the Most Worshipful Grand Lodge (M.W.G.L.) of Washington Territory, who authorized the following allocation of positions:

Worshipful Master: Granville O. Haller
Senior Warden: Herbert Patterson
Junior Warden: Henry E. Morgan
Secretary: Thomas Cranney (temporary)
Treasurer: Daniel Pearson (temporary)
Senior Deacon: Hugh Crockett (temporary)
Tyler: Hiram W. Hermon (temporary)
Junior Deacon: Joseph Kune (temporary)

In the third Lodge meeting, held on September 16, 1869, these positions were officially assigned, with the exception of the Senior Warden position, which was given to Hugh Crockett, rather than Herbert Patterson.[39] By this third meeting, a number of measures for the successful operation of the Lodge had been introduced, including the establishment of a committee to draft a set of bylaws, one to consult on matters of finance and accounts, and one to adjudicate grievances and rule on charges of Un-Masonic conduct.[40] This last committee would prove especially important to Colonel Haller, who was one of the few people to ever level the charge on a brother Mason. Haller never won any of these decisions, and his diminished sense of propriety did not allow him to leave well enough alone. After losing each of the cases, he resigned from his office of Master, and asked for demit (relinquishment of membership) from the

Lodge itself. In each case a "consoling committee would then wait upon him and persuade him to return."[41] A number of men also petitioned for the degrees between the first and third meetings, many of whom were among the earliest pioneers mentioned in the Ebey diary; those men were Henry Averill, Robert C. Hill (who participated in the house raising of John Alexander), Walter Crockett, Jr., and William Engle (the Island's first mailman).[42]

By June 24, 1869, a change in officers had once again occurred, with the following results; *Worshipful Master*, Granville Haller; *Senior Warden*, Hugh Crockett; *Junior Warden*, Jonathan Mitchell; *Treasurer*, Robert C. Hill; *Secretary*, Thomas Cranney; *Senior Deacon*, John Alexander; *Junior Deacon*, W.B. Clark; *Tyler*, Hiram Hermon; *Chaplain*, Herbert Patterson; and *Stewards*, Andrew Frasier and Henry Morgan.[43] With the membership of the Lodge growing quickly, the opportunity arose for the allocation of more positions, such as "Chaplain" and "Steward," as well as for the re-delegation of certain officers to positions for which they were better suited. Herbert Patterson, for example, was installed as the Lodge Chaplain, a position for which he was ideally suited, given the fact that he was the Pastor of Coupeville's Methodist Church.[44] During this time the Lodge also witnessed a number of candidates receiving more than one degree in a single evening. Frank Coates remarks that, at the time, this practice was not at all unusual; in fact, on a number of occasions, a petitioner was conferred all three degrees (Entered Apprentice, Fellowcraft, and Master Mason) in a single evening.[45]

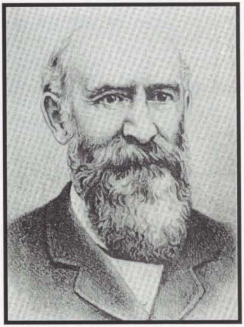


Figure 18: *Lodge member and Treasurer Robert C. Hill.*

As the Masons of Whidby Island Lodge #15 had not yet constructed a temple of their own, their early meetings were held in the hall owned by the International Organization of Good Templars (I.O.G.T), a group dedicated to the promotion of temperance which was founded in Sweden in the early 19th century. The I.O.G.T. Hall was connected to the Central Hotel, a landmark building on Coupeville's Front Street which was

owned by Jacob Jenne, a member of the Lodge (and one of the few men to be accused of Un-Masonic conduct), until it burned down sometime in the mid-1940's. The first discussion which took place in regards to

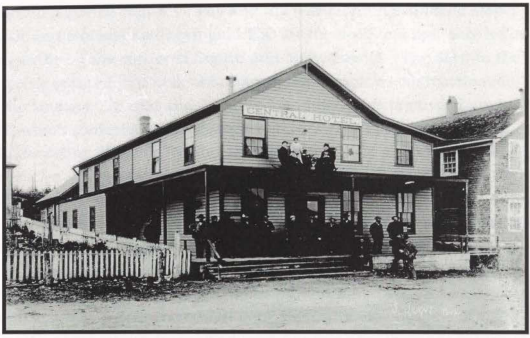


Figure 19: The Central Hotel, owned and operated by Lodge Member Jacob Jenne, housed the I.O.G.T. Hall in its back rooms, and once served as the meeting place for Lodge members before their Temple was built.

the construction of a Masonic Temple to be used by the Lodge occurred at the meeting which was held here on March 17, 1870. At that time, a committee consisting of Thomas Cranney, Jonathan Mitchell, Hugh Crockett, and a man named Barker (first name unknown) was entrusted to "investigate the possibility of obtaining a hall," and to report back to the Lodge at the next meeting.[46] The expected report by the committee was apparently never made, and on December 1st of that year, the committee was discharged.[47] Over the next few years, the Lodge continued to meet in the I.O.G.T. Hall on Front Street and have frequent, if fruitless discussions regarding the construction of the Temple. Progress was eventually made, albeit slowly, and by the spring of 1874, work had commenced on the new Temple.

King Solomon's Temple Reborn

Plagued by the frequent starts and stops inherent in a newly formed organization, the Whidby Island Lodge #15 seemed to be suffering from a bout of hiccups relative to the construction of a temple of their own. By February of 1871, the Mason's had progressed so far as to have organized another building committee charged with

"[making] arrangements for a lot in Coupeville, either by gift or by purchase upon which to build a Masonic [Temple]." On March 30, the committee, comprised of John Cranney, Jonathan Mitchell, and Walter Crockett reported that R.C. Fay and his wife (John Alexander's step-father and mother) had been paid $50 for the deed to a half-acre lot in Coupeville on the corner of Eighth and Main Streets.[48] The deed to the lot being secured, the task of financing the Temple's construction fell to the Masons. To that end, another committee was organized on July 26th, which consisted of Masonic Brothers Walter Crockett, Robert C. Hill, Jonathan Mitchell, Taylor, and DeJorup (Neils or Peter).[49] This committee's presentation of their findings was continually postponed, and no record of their delivering the same exists in the meeting minutes. At any rate, it would not be until January 1, 1974, that another mention is made relative to the Temple construction.

In the December, 1871 elections, John Alexander was elected Master of Whidby Island Lodge, a position he would be re-elected to multiple times. Under the direction of Alexander, discussions of the Temple's construction intensified, and financing for the undertaking was eventually secured. The final impetus pushing construction occurred in the months between March and June 1873, when frequent and often heated discussions were held between the Masons and the I.O.G.T. over the Lodge's use of their hall.

During these months the I.O.G.T. imposed numerous restrictions on the Mason's use of the hall, and increased their rent a number of times. After issuing an apology in reference to some complaints the I.O.G.T. had leveled at the Lodge regarding the way they used the hall, the Masons decided that enough was enough, and informed the Good Templars that after the first of the year, they would no longer require the use of the building.[50] On New Year's Day, 1874, Walter Crockett was authorized to draw up specifications for the new Temple, and the very next day a special meeting was called for the purpose of considering the ways and means with which to accomplish this goal.[51] In March, the Building Committee announced its decision to give the building contract to John Alexander, whom they called "a Master Mason in every way competent to fulfill the specifications of the contract."[52]

John Alexander had already established himself as a skilled craftsman, and census records list his profession as "carpenter." Undoubtedly, Alexander's recent Mastership of the Lodge and his work

towards securing financing for the construction were also large factors in granting the commission to him. Alexander's commission for the project was $1200, of which he was paid $588 in four installments. Materials which valued the balance of Alexander's commission were provided to the Lodge by Thomas Cranney (who was co-owner of Grennan and Cranney Lumber Mill, as well as a merchant[53]), and Robert C. Hill (a former lumberman), and likely formed the bulk of the materials used in the Temple's construction.[54] Work on the building progressed slowly, and it was not until December that minutes indicate Lodge meetings were being held in the new Temple.[55]

Modifications and Additions Abound

The Lodge's meeting minutes are chock full of notations regarding changes, modifications, additions, and removal of materials from every part of the Temple. Fortunately, these minutes were meticulously recorded, noting the cost down to the penny of everything from rug cleaning to the purchase of spittoons. These entries are invaluable to the understanding of the evolution of the Temple, and the changing ways in which it has been used over its 132 year history. For the purposes of this history, all major structural changes will be discussed in detail, and minor alterations or additions will be mentioned as necessary.

Figure 20: This 1936 photograph is the earliest known visual record of the Temple which shows multiple elevations. This appears to show the Temple as it was originally constructed.

The Early Years, 1874-1902

The early years of the Temple were the busiest in terms of modifications and additions to the structure. During this time, most of the changes made were in order to improve either the structural stability or the functionality of the building. It was also during this time that we glean the most clues as to how the interior of the Temple was organized and used, as the minutes make frequent mention of furnishings, wall

treatments, and utilities, as well as making record of the various groups who rented space in the Temple, and for what purpose.

In December of 1874, as the Lodge was just settling into its new surroundings, Walter Crockett presented a bill for the first interior furnishings recorded in the minutes. Totaling $56, the bill was drafted for items to be purchased from three different vendors and included a large stove and pipe ($16), lamps and curtains ($30), and a small stove and pipe ($10).[56] The first mention of modification to the lot itself occurred in February of 1881, when it was declared during a meeting that any member of the Lodge would be allowed to erect a building on the lot so long as its purpose was to stable horses.[57] It is unlikely that anyone acted upon this offer, as no such structure is ever mentioned again, but at any rate the offer prompted a lot clearing, which was undertaken by Lodge member Dr. Joshua Highwarden (the local pharmacist) in November.

In March 1881, one of the first records of the Temple being rented is made, and it indicates that the Island County Commissioners would be renting the Lower Hall of the Temple (the main room on the ground floor) for use as offices. To that end, Robert C. Hill was credited a sum of $28.75 for lumber he used in retrofitting the Lower Hall for this purpose. The Island County Commissioners had specified to the Lodge that they required this space to be divided into at least three rooms, but unfortunately no indication of the exact location of these partitions exists;[58] as such the drawing in the "measured and scaled drawings" section in this report which indicates changes to the interior of the Temple over time shows these changes to the Lower Hall as dotted lines.

A number of significant repairs were made to both the interior and exterior of the Temple between 1886 and 1887 which warrant mentioning. After a meeting in November of 1885 which broached the subject of making improvements to the Temple's foundations, work actually commenced on the undertaking in December of 1886, at which time the concrete platforms were replaced by Brother G.S. Williams for a fee of $6, and a wooden walkway was installed by Alvah D. Blowers along the eastern (front) side of the Temple.[59] Blowers appears to have been an industrious and enterprising young man who was both well known and well respected about town. In addition to being President of the Island County Bank, he was part owner in the mercantile company of Blowers and Kineth, business manager and half-owner of the Island County

Times, chief stockholder of the Glenwood Improvement Company, and half-owner of all the interest in the town of Brooklyn, which was situated on the west side of the Island. He also served as Island County Treasurer and Probate Judge, and during this time was responsible for renting out offices in the Temple to the Island County Commissioners.[60]

Work on the Temple foundations continued in 1887, and in that year the underpinnings were replaced by Joseph Power for $12.00.[61] Currently, the underpinnings for the Temple are constructed of brick. As no other mention of replacement of or modification to the underpinnings exists in the minutes, it is assumed that the current underpinnings are the ones installed by Power in 1887. A month before the replacement of the underpinnings, $75 had been allotted to pay for the application of two coats of paint to the exterior of the structure. This is the first mention of exterior paint, though it remains uncertain whether the wooden siding of the Temple was painted at all before this time.[62] A HABS photograph from 1936 shows the Temple painted white and the cement asbestos shingles which currently clad the building are also white.

While the exterior of the Temple was receiving a coat of paint in 1886, the interior was receiving wall treatment as well. Calcimine, a white liquid which contains zinc oxide, water, glue, and powdered pigment was used to coat the interior walls (and possibly the ceiling) of the Temple. This is the first mention of any kind relative to the historic interior wall treatments.[63] Exploration of the space between the first and second floors of the Temple revealed walls and a historic ceiling which had been coated with a blue-green colored paint (see figure 21, next page). This may be the remnants of the calcimining applied at this time. The only other improvements to the Temple which occurred in the 1880's both also related to the interior of the structure and include the installation of carpeting (no mention of where) and a chandelier, and the allocation of $122.70 for furnishings.[64]

After 1887, improvements to the Temple occur more sporadically, at an average rate of 1 per year. Many of these improvements were minor, and included carpet replacement and installation in 1893 and 1897, the purchasing of spittoons (cost, $0.45 each) in 1900, and the installation of chairs in the Lodge Hall (2nd floor) for the Master, Senior Warden and Junior Warden in 1907.[65] Major alterations or additions to the Temple which occurred during this time included the construction of a cistern to the west of the Temple by L. Boyer in November 1891, and

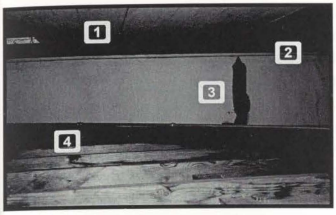


Figure 21: Space between the first and second floors as it appears today, showing (1) the original first floor ceiling, (2) the historic trim, (3) the calcimining, or historic wall finish, and (4) the ceeiling joists for the current drop ceiling.

the installation of ventilation shafts in June 1898.[66] A number of important gifts were presented to the Lodge in 1896, including the first cook stove by Mose Mock, and a pair of marble rough and perfect ashlar blocks, architectural Masonic symbols for the state of a man as he enters membership in the Lodge, and his state upon attaining the degree of Master Mason, which were presented by C.H. Stackpole.[67]

Stackpole, who petitioned for the degrees a number of times before being accepted, became a great benefactor of the Lodge, presenting it with many of its emblems. In February of 1897, he presented the Lodge with a Square and Compass Emblem, which was gilded and placed in the Temple's eastern gable end (this was unfortunately thrown away when an addition was added to this elevation in the 1946), and in April 1902 he made the gift of an "All-seeing eye" (whereabouts unknown).[68]

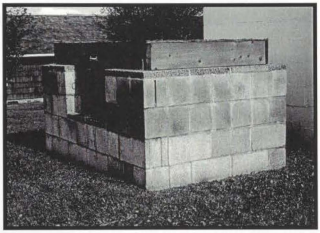


Figure 22: The cistern installed by L. Boyer in 1898 has since been surrounded by concrete blocks and had a new top installed. This is how it appears today.

In 1903, after numerous alterations and repairs had been made to the building, the first mention is made in the minutes about the possibility of either relocating to another facility, or constructing a new Temple.[69] What is unclear; however, is the motive for this discussion, which would continue off and on for at least the next 70 years. Whether this discussion was borne out of a need for more space or the rising costs of making repairs remains unknown. Fortunately for historic preservationists, the Lodge neither relocated nor constructed a new Temple, and in the years since 1903, they have continually opted to

make changes to their existing structure rather than start anew. While so many layers of history makes the accurate reading of the structure exponentially more difficult, in this particular instance it is far preferable to have a building exhibit the marks of continual change than to have it be demolished or abandoned. As a result of this continual discussion of the Temple, the improvements and additions to the building which are mentioned in the minutes between 1903 and 1960 are much less concerned with minor changes to small scale elements, like they were in the early history, and are more focused on getting the best and most economically viable use possible from the structure.

The Middle Years, 1903-1960

Following the discussion begun in 1903 about the possibility of purchasing a new building, the Lodge decided that, at least for the time being, they would remain in the Temple. It seems at though this conversation was at least partially motivated by spatial concerns, as a committee was appointed to investigate the construction of an addition to the Temple on January 10th of that year. A partial report was presented at the next meeting, held on February 7th, but nothing came of the idea (as was so often the case), and by 1907, no action had been undertaken.[70] In January 1909, the discussion was once again renewed. At that time the Lodge went so far as to approach the Congregational Church with an inquiry over purchasing the lot immediately adjacent to the northern elevation of the Temple, which housed the stone foundation that once supported the old Puget Sound Academy Building (once the only institution of higher learning north of Seattle, it had burned a number of years earlier), but the Church's asking price was too high. Apparently, the Lodge aimed to use this lot for a major expansion to the Temple, as it would have been ludicrous to erect a new structure next door to their own (when they could have just as easily torn the Temple

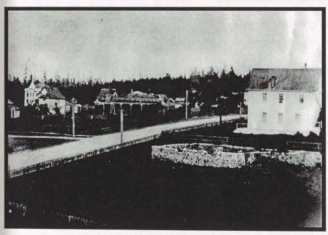


Figure 23: Photograph circa 1900 showing the Masonic Temple on the right and the foundation of the Puget Sound Academy in the foreground. The Lodge offered to buy this land in order to expand the Temple in 1909. View looking southeast.

down and built anew).[71]

The fires of expansion temporarily reduced to a smolder, the Lodge focused for the next two years on the installation of a fence and a sidewalk. Like so many other things, the plan to build a new fence petered out, owing to the fact that an older fence still existed; but the plan to install a concrete sidewalk to replace the wooden walk built by Alvah Blowers in 1886 did achieve fruition. In April 1911, Ira L. Todd, who was partners in a local construction firm with Lodge history author and fellow Mason Frank Coates[72], was paid $21.50 for installing a walk between the entrance to the Temple and Blowers' wooden walk. A year later, he was once again commissioned, this time to replace Blowers' work. The commission was for a walkway five feet wide and four inches deep, to be installed at a cost of $0.80 per linear foot. Coates assisted, and in total, the pair was paid $104.06 for undertaking the work.[73] It was during this period that the Lodge acquired additional property in the lot immediately adjacent to the Temple's western façade after Brother Crawford, a longtime member of the Lodge, died.

Figure 24: *Concrete walkway installed by Todd and Coates in 1911, which connected the Temple entrance to the original wooden walk installed by Alvah Blowers in 1886.*

Crawford his widow with little more than this building lot. In 1910, it was agreed that if the widow Crawford deeded the lot to the Lodge, they would build upon it a house where she could live out the rest of her days. The house was built at a cost of $138.85, and it still stands to the west of the Temple.[74] By March 7, 1914, Mrs. Crawford having passed on, the decision was made to rent her house from month to month, a function which it still retains to this day.[75] In May of 1915, the decision was made to build a brick chimney for this house, as ventilation had previously been attained through a metal pipe which protruded from a piece of sheet iron in a lowered window.[76] While historic preservationists will be heartened by the fact that the Lodge built a house for the widow of a former Brother, others may find it perplexing that, given their own

yearning for a new or enlarged facility, they did not invest the money into their own building. The rationale behind this move is unclear, though it likely was motivated by the sense of fraternal brotherhood and charity practiced by the Masons. The move actually turned out to be a smart one, as after the death of Mrs. Crawford, the Lodge was in possession of a property which was income producing, and could be used in part to fund their other expenditures.

Figure 25: Crawford Bungalow, built by the Lodge for the widow of one of their members in 1910.

Giving credence to the house building as a humanitarian expenditure, yet another committee was formed in 1914 with the purpose of investigating the cost of building a new Temple. Though they submitted plans two months later, the committee's findings were either found to be unfeasible, or they were ignored. This scenario was repeated again in 1922, with the exception that two reports were made, and once more in 1927. In 1928, the Lodge made a bit more progress in this arena, getting as far as submitting plans and instituting a savings account to serve as a building fund, but once again the plans fell through. After several more miss-starts and failed attempts, the issue was put to rest. It would be 1931 before the subject was broached once again.[77] In February of that year, plans and estimates for an addition to the Temple were made and submitted, and a committee appointed, but once again the project was stymied by indecisiveness, and nothing was done.

Given the failed attempts by the Lodge to either build a new Temple or expand their current structure, monies once reserved for these purposes began to be re-allocated to other, smaller scale projects. For example, in 1931 withdrawals were made from the building fund in order to buy new chairs ($72.50) as well as to procure two 3000 watt electric heaters for the purpose of heating the Temple. By 1939, however, a change in strategy must have occurred, as it was in this year that the first addition to the Temple was actually built, being located on the southern elevation of the structure.[78] The staircase which in the

HABS photograph of the Lodge from 1936 is shown as a rectangular projection off of the main face of the southern elevation was enclosed by

Figure 26: The southern Temple elevation after the additions to the south, east, and west. The south addition incorporated the stairwell projection in the 1936 HABS photograph into the body of the building.

this addition, which expanded the wall plane of the stairwell projection to the roofline, as well as to the eastern and western ends of the Temple. Besides greatly modifying the pitch of the east/west gabled roof, this addition created one bathroom and some storage space on the first floor, as well as the space which currently house the Women's Changing Room/Bathroom on the second floor. It is unclear whether any bathrooms existed in the Temple before this time, and if so, where they existed.

The construction of the Temple's southern addition marks the beginning of an era of expansion for the Lodge, both in its membership and in the physical space occupied by the Temple. By 1955, all of the major structural changes to the Temple were already constructed, and changes after that time tended to be large in scale, if sporadically undertaken.

The Age of Expansion, 1939-1954

Between the years of 1874 and 1942, 1929 showed the highest recorded Lodge membership, with 109 registered members. By the 1950's, this number had swelled, owing to the huge number of new members who petitioned for the degrees after returning home from

fighting in World War II. The military contingency in the Lodge was so large, that in September 1951, the Entered Apprentice degree was conferred by a completely uniformed degree team.[79] Activity was so perfuse during this era, that the Town Council of Coupeville sent the first of many letters to the Lodge requesting that they control the parking in front of the Temple so as to minimize the disruption to local traffic. Given the influx of new blood and the sheer manpower now available within the organization of the Lodge, it is easy to understand how a number of major additions or alterations to the Temple could occur in such a short period of time, given the fact that all previous attempts at modification had been stymied, forgotten, or dragged out for decades.

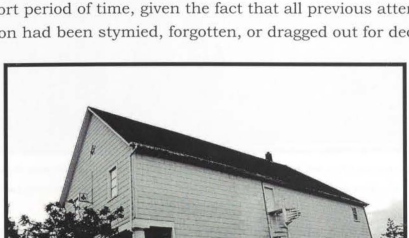


Figure 27: *Northeastern elevation showing obvious difference in the color of cement-asbestos shingles (arrow), which line up directly with the foundations of the 1948 eastern addition.*

During the mid to late 1940's the first discussions of another addition, this time to be installed on the eastern façade, took place, and the first mention of a steel fire escape occurred. In 1948, it was decided that twenty feet would be added to the eastern façade utilizing volunteer labor, with an estimated cost for materials of $620. This decision followed a series of discussions which were first broached the previous year. It was also decided this year that asbestos shingles would be installed on the exterior surfaces of the Temple as soon as finances permitted.[80] While it is unclear when the installation occurred, irregularities in the installation of the asbestos shingles which become apparent approximately twenty feet from the eastern edge of both the north and south walls would indicate that they were originally installed *before* the addition was constructed, and that more shingles were added

to cover the addition at that time. If the shingles had been installed after the addition was completed then the visible anomaly in the tiles would likely not have occurred.

Figure 28: Early 20th century photograph of the Oak Harbor Branch of Everett Bank. Built in 1910, thus bank's sugnature columns were removed and added to the Masonic Temple in Coupeville in 1948 after the bank was purchased by a Lodge member.

When the eastern extension was added to the Temple in 1948, the doric columns which have become one of the character defining features of the structure were added as well. The columns were donated to the Lodge by one of its members, Brother Lloyd Patton, who also paid to move them to the Temple in 1948. Patton had recently purchased the building which formerly housed the Oak Harbor branch of Everett Bank, with the intention of remodeling it. As the demolition got under way, he thought that the columns might look nice on the front of the Masonic Hall, and so donated them to the Lodge. As it happened, the addition was only to extend outward from the second story, and the resultant projection would have required extra structural support anyways.[81] The last major addition to the Temple occurred in 1954, when 14 feet was added to the western elevation, resulting in what is now the Kitchen, Men's Restroom, and two storage closets on the first floor, and the Archives Room on the second floor.[82]

With all of the additions to the Temple now constructed, the Temple moved into its "modern phase," which continues to the present day. Modifications during this period become even more sporadic, and the minutes mention the Temple building less and less. Most of the

minutes after 1980 do not mention the building at all, instead referring to the large number of applicants who were accepted into the Lodge. The trend begun after World War II of heightened membership continues to this day, and the Lodge now boasts over 250 members.

The Modern Era, 1960- Present

Given the ever expanding membership the Lodge continued to experience beginning after the end of World War II, it is unsurprising that many of the modifications which occurred in or around the Temple were directly related to this growth. Quite a bit of discussion was given over to rectifying the parking situation which had begun to give the Lodge trouble in the early 1950's, as well as to the front sidewalk and ditch, which had begun to disintegrate due to the continual presence of parked cars.

In January of 1960, the Lodge received yet another in a very long succession of warnings from the police and the city council regarding their parked cars blocking the local traffic. In February, the suggestion was made that a parking lot be constructed, but not until April or May, owing to the inclement weather. This lot was eventually constructed on the south side of the Temple, but it is unclear as to when this occurred. By 1983, there is mention in the minutes of lighting being installed here, so the construction certainly predates this entry.[83] The large ditch that abutted the sidewalk on the Temple's eastern side also seems to have become quite a thorn in the Lodge's side, as it had badly eroded due to all of the cars which parked there.

Not willing to accept full responsibility for the degradation, owing to the fact that Coupeville required the Lodge to install the ditch when they first installed the concrete walk, a motion was carried to provide the City with enough tiles to fill in this chasm, if they would accept the responsibility of installing it. As of March of 1961, the City stated that it had no intention of taking on the responsibility of repairing either the sidewalk or the ditch. It wasn't until September of 1963 that the Lodge and the City finally came to an agreement regarding this issue, and the decision was made that the City would assist in the installation of drainage tiles in the ditch as much as possible, providing that the Lodge purchased them. A committee was then formed to price this expenditure, but the October 15th motion to purchase the tiles failed.[84]

The last major alterations to the Temple landscape occurred in

between 1960 and 1973. In February 1964, the steel spiral fire escape was installed on the northern elevation of the Temple. Access to the escape is granted from the interior via a door in the Lodge Hall room, which given its truncated height and the location of its threshold being two feet from the floor, appears to have been converted from a former window. The installation of the fire escape was first discussed in December of 1946, but at that time the addition to the eastern side of the building took precedence.[85] In 1973, after plans were presented for the construction of a detached storage building on the Temple lot, the concrete block structure currently located on the west side of the building was erected at a total cost of $950.[86] Other than these two major projects, alterations to the Temple since the late 1950's have been relatively minor, and could most readily be classified as "improvements." Once again, modifications began to be made to the interior of the Temple, and mentions of furnishings and small scale repairs begin to re-occur. The most major of all these improvements occurred in the Temple's Kitchen, and they began taking place in the late 1950's.

Figure 29: *Steel spiraling fire escape on the north elevation of the Temple, which was installed in 1964. View Looking south.*

Between October 1973 and March 1978, the Lodge congregated on three separate occasions to discuss improvements which needed to be undertaken in the Temple. The general consensus at these meetings was that the interior of the structure would benefit from a flooring upgrade, and to that end new flooring was purchased for both the refreshment and kitchen areas on the first floor, and new carpeting was also purchased. In March 1987, deficiencies in the sound and electrical systems were brought to the attention of the Building Committee, and

recommendations were made for their improvement. The electrical system had been at least partially upgraded when fluorescent fixtures and a new lighting system were installed in the Grand Hall in 1983 (it is assumed that the vaulted ceiling and acoustic tiles were installed here at the same time), though no further upgrades following the 1987 recommendations were noted.[87]

It must be noted here that the "modern" electrical system had been first been discussed for installation in the Temple in August of 1916. In his History, Frank Coates remarks that before this time,

> ...the hall had been lighted by acetylene gas, as were many of the better homes, both churches, and probably one store. While much in advance of the old kerosene lamps, people were now finding the costs of carbide and maintenance too high, and were looking for something better.[88]

This was an age in which individual Delco lighting plants were springing up all over the place. Mr. Cheney, a local man who ran a repair shop, owned one such lighting plant, and with the aid of a Ford engine and a one kilowatt generator, he was able to supply power to his own shop, as well as to some of his neighbors. After some modification, he was able to supply power as far away as the Ralph Lindsey Home (a few blocks away). In November of that year, it was decided to wire the Temple for electric lighting and purchase the current locally. This decision came after the Building Committee decided not to purchase a Delco Plant of their own. The first bill for electric current was paid to the Island Electric Works. This company was apparently owned by Mr. Cheney, who must have dropped the name shortly thereafter, as the next electric bill was paid directly to him. Masonic Brothers Sergeant Boichat and Dr. E.F. Ristine were both paid for their contributions of electrical supplies, and Sgt. Boechus and Brother Kottke were thanked for their kindness in volunteering to install the lighting system.[89]

A number of repairs to the Temple roof have been undertaken over the years, the most recent of which occurred in 2000. The notion that the roof would need to be repaired was first introduced in 1967 as the result of colonization by a family of woodpeckers, who had bored a number of holes on its northern side. Years passed, and it was not until 1972 that a contract was drafted in order to make the necessary repairs. In the October 1981 minutes, the roof repairs are recorded as being recently completed. It seems strange that fourteen years would have passed between the initial call for repairs to the roof and the completion

of the work, but given the Lodge's track record for completing scheduled work projects it is just as likely that this actually was the case.[90] At any rate, by February of 2000, the Temple roof was once again faltering and in need of repair. At this time, the Lodge met and approved the expenditure of $12,096 for its replacement. In June, it was decided that one of the Lodge's Certificates of Deposit would be cashed in order to fund the project, as well as to pay for the installation of new carpet in the Dining Room (formerly the Lower Hall). By August, $5,628.66 had been transferred to the Hill Masonic Temple Association (H.M.T.A), the managing body of the Temple, and by September, the work had been completed and the H.T.M.A. was thanked for completing the task.[91] This is the last major alteration or repair that is recorded in the meeting minutes of the Whidby Island Lodge #15.

A Long and Winding Road

The almost 140 year history of the Whidby Island Lodge #15 is complex in that it reveals not only insights on the way a Masonic Lodge operates, but in that it speaks to a much broader social, political, and historical context. The Whidby Island Lodge is completely intertwined with the history of Whidbey Island, and more particularly, the pioneer families who first settled the land in the mid-nineteenth century. As such, this is not the story of a Lodge or a Temple, but rather one of a community and a place. Just as the Lodge has grown and adapted over the centuries, so to has its Temple; the architectural incarnation of its history and values. It is sincerely hoped that this document will promulgate the further preservation of the Temple structure, so that it may continue to serve as a vessel for this shared history for many generations to come.

Notes

[1] Coates, Frank C, "Some Notes on the History of Whidby Island Lodge #15, F. & A.M. Coupeville, Washington," (Coupeville, WA: Whidby Island Lodge #15, F. & A. M., 1964), p. 1.

[2] "A Brief History of Whidbey Island," Internet On-line, Available from <http://www.nps.gov/archive/ebla/tour/tour0.htm>, Accessed 01 October 2006.

[3] Lange, Greg, "Native Americans force settlers to leave Whidbey Island in August 1848," HistoryLink.org, Essay #5246, 19 February 2003, Internet On-line, Available from <http://www.historylink.org/essays/output.cfm?file_id=5246>, Accessed 14 September 2006.

HistoryLink.org is an online archive of encyclopedic articles on the history of Washington State, and yields a wealth of information on the subject.

[4] Cook, Jimmie Jean, "A Particular Friend, Penn's Cove." A History of the Settlers, Claims, and Buildings of Central Whidbey Island, (Coupeville, W.A.: Island County Historical Society, 1973); reprint ed.; 1988, p. 16.

[5] Ibid., p. 17.

[6] Ibid.

[7] "Congressional Delegations from Washington State," HistoryLink.org, Essay #5463, 19 August 2003, Internet On-line, Available from <http://www.historylink.org/essays/output.cfm?file_id=5463>, Accessed 14 September 2006.

[8] Farrar, Victor J, "The Diary of Colonel and Mrs. I.N. Ebey." Washington Historical Quarterly Vol. VIII (July 1916) : 133.

[9] Cook, 19.

[10] Ibid.

[11] Farrar, 241-243.

[12] Ibid., 128.

[13] Ibid., 241.

[14] Ibid., 242.

[15] Ibid., p. 243.

[16] Stensland, Jessie, "Historian Fails in Scalp Hunt," Whidbey News-Times, 24 May 2003. Internet On-line, Available from <http://www.islandhistory.org/wntTrebon.htm>, Accessed 18 July 2006.

[17] Whidby Island Lodge #15, F. & A.M. Coupeville, Washington. Lodge Meeting Minutes. 17 December 1874, Vol. 1 p. 164.

[18] Cook, p. 24.

[19] Farrar, p. 146.

[20] Ibid., p. 246.

[21] Cook, p. 26.

[22] Farrar, p. 246.

[23] Ibid.

[24] Coates, Frank C, "Names and Dates in History," (Coupeville, WA: Whidby Island Lodge #15, F. & A. M., 1964), p. 3.

[25] Cook, p. 35.

[26] Farrrar, p. 310.

[27] Whidby Island Lodge #15, F. & A.M, 16 December 1869, Vol. 1 p. 22.

[28] McRoberts, Patrick, "Island County's first Commissioners' meeting takes place in Coveland on April 4, 1853," HistoryLink.org, Essay #5259, 21 February 2003, Internet On-line, Available from <http://www.historylink.org/essays/output.cfm?file_id=5259>, Accessed 14 October 2006.

[29] Farrar, 135.

[30] Island County, Washington, Marriage Certificates 1855-1891, Marriages, returns filed and recorded in Probate Record, Clerks Office, Records available On-line from <http://www.rootsweb.com/~waisland/marr1isc.txt>, accessed 05 September 2006.

[31] U.S. Census Bureau; "1871 Federal Census, Island County, Washington Territory;" Published and transcribed 1998, Ralph L. Seefeld, Genealogical Society of South Whidbey Island, Available from <http://www.rootsweb.com/~wagsswi/census1871.htm>, accessed 29 September 2006.

[32] Hayton-Keeva, Ancestral Walls: Old Abodes of Central Whidbey Island, (Coupeville, Washington: Sagn Books, 2003), p. 37.

[33] Coates, p. 1.

[34] Rothschild, D.C.H, Letter of recommendation to the Grand Lodge of Washington Territory for the formation of a lodge on Whidby Island, as recommended by Port Townsend Lodge #6, 24 June 1869.

[35] Haller, Granville O., et al, Request for dispensation to the Grand Lodge of Washington Territory, June 1869.

[36] Cook, p. 78.

[37] Ibid.

[38] Whidby Island Lodge #15, F. & A.M, 22 July 1869, Vol. 1 p. 3.

[39] Whidby Island Lodge #15, F. & A.M, 16 September 1869, Vol. 1 p. 10.

[40] Whidby Island Lodge #15, F. & A.M, 22 July 1869, Vol. 1 p. 5.

[41] Coates, "History of Whidby Island Lodge," p. 2.

[42] Whidby Island Lodge #15, F. & A.M, 19 August 1869, Vol. 1 p. 6.

[43] Whidby Island Lodge #15, F. & A.M, 24 June, 1869, Vol. 1 p. 24.

[44] Whidby Island Lodge #15, F. & A.M, 7 July 1870, Vol. 1 p. 45.

[45] Coates, p. 9.

[46] Whidby Island Lodge #15, F. & A.M, 17 March 1870, Vol. 1 p. 35.

[47] Whidby Island Lodge #15, F. & A.M, 1 December 1870, Vol. 1 p. 57.

[48] Whidby Island Lodge #15, F. & A.M, 30 March 1871, Vol. 1 p. 80.

[49] Whidby Island Lodge #15, F. & A.M, 26 July 1871, Vol. 1 p. 87.

[50] Coates, p. 14.

[51] Whidby Island Lodge #15, F. & A.M, 1 January 1874, Vol. 1 p. 153.

[52] Whidby Island Lodge #15, F. & A.M, 20 March 1874, Vol. 1 p. 155.

[53] U.S. Census Bureau; "1860 Federal Census, Island County, Washington Territory;" Published and transcribed April 26 1999, Dianne L. Arthur and Kevin Fraley, USGenWeb Census Project, Available from <http://www.rootsweb.com/%7Ecenfiles/wa/island/1860/60ic.txt>, accessed 29 September 2006.

[54] Whidby Island Lodge #15, F. & A.M, 20 March 1874, Vol. 1 pp. 158, 165.

[55] Whidby Island Lodge #15, F. & A.M, 27 December 1874, Vol. 1 p. 169.

[56] Ibid., p. 168.

[57] Whidby Island Lodge #15, F. & A.M, 12 February 1881, Vol. 1 p. 243.

[58] Whidby Island Lodge #15, F. & A.M, 12 March 1881, Vol. 1 p. 245.

[59] Whidby Island Lodge #15, F. & A.M, 11 December 1886, Vol. 2 p. 34.

[60] Cook, p. 83.

[61] Whidby Island Lodge #15, F. & A.M, 8 January 1887, Vol. 2 p. 37.

[62] Whidby Island Lodge #15, F. & A.M, 11 December 1886, Vol. 2 p. 34.

[63] Ibid.

[64] Whidby Island Lodge #15, F. & A.M, 28 November 1888, and 15 December 1888, Vol. 2 pp. 49, 50.

[65] Whidby Island Lodge #15, F. & A.M, 4 June 1893, 9 October 1897, 8 September 1900, and 19 October 1907, Vol. 2 pp. 102, 209, 243, Vol. 3 p. 116.

[66] Whidby Island Lodge #15, F. & A.M, 14 November 1891, and 4 June 1898, Vol. 2 pp. 256, 210.

[67] Whidby Island Lodge #15, F. & A.M, 22 February 1896, Vol. 2 p. 172.

[68] Whidby Island Lodge #15, F. & A.M, 13 February 1897, and 19 April 1902, Vol. 2 pp. 189, 226.

[69] Whidby Island Lodge #15, F. & A.M, 10 January 1903, Vol. 2 p. 281.

[70] Ibid.

[71] Whidby Island Lodge #15, F. & A.M, January 1909, Vol. 3 pp. 148-150.

[72] Cook, p. 100.

[73] Whidby Island Lodge #15, F. & A.M, 21 September 1912, Vol. 3 p. 220.

[74] Coates, p. 41.

[75] Whidby Island Lodge #15, F. & A.M, 7 March 1914, Vol. 3 p. 248.

[76] Coates, p. 49.

[77] Ibid, p. 54.

[78] Ibid., p. 57.

[79] Ibid., p. 58.

[80] Ibid., p. 59.

[81] Ibid., p. 60.

[82] Ibid., p. 68.

[83] Freemasons, Whidby Island Lodge #15, F. & A.M., Coupeville, Washington, "History of the Lodge 1960-2000," (Coupeville, WA: Whidby Island Lodge #15, F. & A.M., 2000), p. 92.

[84] Ibid., pp. 57-60.

[85] Coates, p. 59.

[86] Freemasons, p. 73.

[87] Ibid., pp. 87-91.

[88] Coates, p. 39.

[89] Ibid., p. 48.

[90] Freemasons, pp. 67-89.

[91] Ibid., 202-207.

Illustration Credits

Figure 1: HABS photograph, 1936, Available through the Library of Congress Digital Collections, Internet on-line, available from <http://memory.loc.gov/cgi-bin/query/S?pp/hh:@field(TITLE+@od1(Masonic+Hall +Whidby+Island,+Coupeville,+Island+County+WA)), Accessed 13 September 2006.

Figure 2: Kristin Monahan, 2006.

Figure 3: "HMS Discovery," Internet on-line, Available from <http://bergoiata.org/fe/herb-kawainui-kane/voyagers_csg074_hms_discovery.jpg>, Accessed 20 September 2006.

Figure 4: "Ebey's Landing from South Penn Cove," Internet on-line, Available from <http://seattletimes.nwsource.com/art/pacificnw/2004/0613/cover01.jpg>, Accessed 22 September 2006.

Figure 5: "Ebey's Prairie," Internet on-line, Available from <http://seattletimes.nwsource.com/.../0613/cover07.jpg>, Accessed 22 September 2006.

Figure 6: Cook, Jimmie Jean, "A Particular Friend, Penn's Cove." A History of the Settlers, Claims, and Buildings of Central Whidbey Island, (Coupeville, W.A.: Island County Historical Society, 1973; reprint ed.; 1988), p. 18.

Figure 7: Neil, Dorothy, De Ja Views: Historical Pictorial of Whidbey Island, (Oak Harbor, W.A.: Island Images, Inc., 1990), p. 3.

Figure 8: Cook, Jimmie Jean, "A Particular Friend, Penn's Cove." A History of the Settlers, Claims, and Buildings of Central Whidbey Island, (Coupeville, W.A.: Island County Historical Society, 1973; reprint ed.; 1988), p. 24.

Figure 9: "Samuel Crockett, ca. 1865," University of Washington Libraries Digital Collections, Internet on-line, Available from <http://content.lib.washington.edu/portraits/image/349.jpg>, Accessed 15 October 2006.

Figure 10: "Hugh Crockett," Courtesy of Island County Historical Society Photograph Archives.

Figure 11: Darst, Peggy Christine, Spirit of the Island...A Photo History of Oak Harbor with Coupeville and San de Fuca on Beautiful Whidbey Isle, (San de Fuca, Washington: Peggy Christine Darst, 2005), p. 307.

Figure 12: Cook, Jimmie Jean, "A Particular Friend, Penn's Cove." A History of the Settlers, Claims, and Buildings of Central Whidbey Island, (Coupeville, W.A.: Island County Historical Society, 1973; reprint ed.; 1988), p. 71.

Figure 13: Kristin Monahan, 2006.

Figure 14: "Daniel Pearson," Courtesy of Island County Historical Society Photograph Archives.

Figure 15: " John Alexander, Jr.," Courtesy of Whidby Island Lodge #15, F. &A.M.

Figure 16: "Thomas Cranney," Courtesy of Island county Historical Society Photograph Archives.

Figure 17: "Colonel Granville Owen Haller," Courtesy of Whidby Island Lodge #15, F. & A.M.

Figure 18: Cook, Jimmie Jean, "A Particular Friend, Penn's Cove." A History of the Settlers, Claims, and Buildings of Central Whidbey Island, (Coupeville, W.A.: Island County Historical Society, 1973; reprint ed.; 1988), p. 49.

Figure 19: "Central Hotel," Courtesy of Island County Historical Society Photograph Archives.

Figure 20: HABS photograph, 1936, Available through the Library of Congress Digital Collections, Internet on-line, available from <http://memory.loc.gov/cgi-bin/query/S?pp/hh:@field(TITLE+@od1 (Masonic+Hall,+Whidby+Island,+Coupeville,+Island+County+WA)), Accessed 13 September 2006.

Figure 21: Zachary Dunlap, 2006.

Figure 22: Kristin Monahan, 2006.

Figure 23: "Temple circa 1900," Courtesy of the Whidby Island Lodge #15, F. & A.M.

Figure 24: Kristin Monahan, 2006.

Figure 25: Kristin Monahan, 2006.

Figure 26: Kristin Monahan, 2006.

Figure 27: Kristin Monahan, 2006

Figure 28: Neil, Dorothy, De Ja Views: Historical Pictorial of Whidbey Island, (Oak Harbor, W.A.: Island Images, Inc., 1990), p. 62.

Figure 29: Kristin Monahan, 2006.

TIMELINE OF CHANGES TO THE TEMPLE

1869: Dispensation is granted by the Grand Lodge of Washington Territory, and the Whidby Island Lodge #15, F. & A.M. is formed.

1874: The Temple is built by member and Past Master John Alexander, Jr.

1881: The Lower Hall is retrofitted to house the offices of the Island County Commissioners. The Lower Hall would be rehabilitated numerous times, and served as a residence/office for two doctors.

1886: Foundations are upgraded. Brick underpinnings and concrete platforms are replaced.

Calcimining applied to the walls of the Temple interior.

1891: A cistern is installed to the west of the Temple by a Lodge member.

1896: A gift of rough and perfect ashlars is made to the Lodge by member C.H. Stackpole.

1897: C.H. Stackpole makes a gift of a square and compass emblem, which is gilt and placed in the gable peak on the eastern elevation.

1898: Installation of ventilation shafts.

1903: The first mention is made in the meeting minutes of building a new Temple.

1910: The bungalow on the lot immediately adjacent to the Temple's western elevation is built by the Masons for the widow of one of their deceased bretheren.

1911: Concrete walk is installed in front of the Temple. A year later, a walk connecting this to the front entrance is installed.

1916: Temple is electrified.

1939: Addition is installed on the southern elevation. The former stairwell projection is enclosed.

1948: An addition to the eastern elevation is installed. Twenty feet is added to this facade, including a projecting second story. The four fluted Doric columns on this elevation were removed from a bank in Oak Harbor and installed on the Temple at this time.

1954: The final addition to the Temple is installed on the western elevation. Fourteen feet is added to this facade, and the roof configuration is changed from gabled to hipped with a clipped gable.

1964: Steel fire escape is installed on the northern elevation. Historic window is rehabilitated as a means of egress from the second story.

1973: The concrete block storage building on the western side of the Temple is constructed.

1981: Repairs are made to the north side of the Temple Roof.

1983: New lighting system installed in the Lodge Room. Electrical elements and sound system also upgraded in this space.

2000: Roof replaced.

CHAPTER II
WHIDBY ISLAND LODGE #15, F. & A.M.
TEMPLE INVENTORY

Figure 1: View of the Temple from the northeast.

Style: Eclectic mix of utilitarian and neo-classical elements.

Form: Two story, gable roofed, east-west facing Masonic Temple.

Configuration: Rectilinear, with a one story projection on the eastern elevation which is supported by four Doric columns.

Site Description: The Temple is located on the southwest corner of 8th and Main Streets, and sits back approximately 25 feet from the main thoroughfare. The lot is bounded to the north by a large berm of earth, which abuts a gravel driveway; to the west by another gravel driveway, to the south by S.W. 8th Street, and to the east by Main Street. Sharing the lot with the Temple are a concrete storage building and cistern to the west, and an oil tank to the north.

The front elevation of the Temple is oriented to the east, in following the tenets of Freemasonry. The eastern elevation connects to the public sidewalk via another concrete walk and three concrete steps. A parking lot on the southern elevation flows directly into the asphalt

surface of 8th Street. Concrete pathways and stairs lead from the southern entrance to the structure and the parking lot to the western elevation.

Structural Members: The structural systems employed in the construction of the Temple are complex and varied in both their design and execution. Given the age of the structure, it is likely that the original portions of the Temple were constructed using a balloon framing system. Without intrusive investigation which would necessitate the removal of some building fabric however, this fact cannot be conclusively determined. Likewise, it is believed that the additions to the eastern, western, and southern elevations, given their age, were installed using a modern platform system of construction.

Exploration of the Temple attic and the crawlspace between the first and second floors do reveal a wealth of information about the ways in which the Temple has grown over its long life. Original floor joists visible in the attic were installed running east to west, and are made of nominal 2" x 6" rough-sawn boards spaced 16" on center. In the area of the crawlspace, the floor joists are not original, and these members are nominal 2" x 4"s, which are planed and spaced 16" on center. Historic wall studs which can be seen in the western portion of the attic in the area of the original gable end are also nominal 2" x 4" members. These are made of rough-sawn lumber, spaced 2' on center. The studs which formed the wall of the modified western gable end after the 1939 addition to the southern elevation were made of planed 2" x 4"s, and these were scabbed directly onto the historic wall studs of this elevation (see figure 2, below). The rafters and other framing members in the rest of the Temple attic are also installed in a haphazard fashion. In the central section of the attic, the framing system is especially discordant.

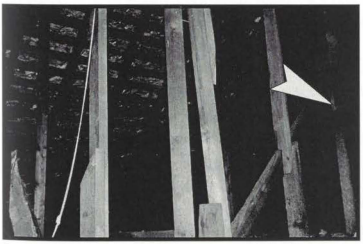


Figure 2: View of the historic wall studs on the western side of the Temple (arrow), and the scabbed on studs for the 1939 addition.

It appears as though the attic was originally constructed with a common rafter system, made up of

2" x 6" rough sawn lumber spaced 16" on center. Horizontal bracing members of the same dimensions and materials were nailed to the outside edges of these rafters. When the 1939 addition was added to the southern elevation, the roof slope was greatly modified to a 10/12 pitch. The rafters which were installed to support this new roof are also 2" x 6" members, though they are planed rather than rough sawn.

While the bracing system in the original portion of the attic roof is regular and orderly in its system, the bracing within the modified portion of the roof, while repeated in each subsequent bay, appears random in its installation (refer to the cross section drawing in the appendix of this document for an image of this element). Here, two 1" x 8" members provide cross bracing to the roof, though they do not span the entire distance of the roof at their lower edges. Intersecting these elements on the south side of the building are a series of additional cross bracing members. These are made of nominal 2" x 4" lumber, and they are connected to both the rafters on the south side of the building, and the 2" x 6" floor joists which run from north to south in this section of the structure.

Vertical bracing members measuring 2" x 6" run from the rafters on the north side of the roof, attaching to these members near the roof peak and running down to the large diagonal bracing member which starts on this side of the structure. To this vertical member attaches a horizontal one. This is attached to the eastern edge of the rafters, and measures a nominal 1" x 6".

One final framing system is present in this area of the roof, and it is made up of 2" x 6" members placed horizontally, with a piece of lumber of the same dimensions vertically supporting each of its ends. In addition to this wildly confusing framing system, additional vertical and diagonal bracing members made of recycled pieces of the historic exterior siding are peppered throughout the attic.

The Temple's exterior walls are of a uniform 8" thickness, except in the area of the Lodge Room on the second story, where modifications to the sheathing on the room's interior have resulted in an overall wall thickness of approximately 10". Without intrusive investigation, the material which was used as insulation within the original frame wall could not be determined. Historically, many kinds of material, ranging from earth to fabric could have been utilized in this space for this purpose. In the non-original portions of the structure, modern insulation has been installed.

The Temple foundations are comprised of multiple systems, and include field stone, board-formed concrete, and poured concrete sections. Without gaining full access to the underside of the building, it could not be determined how structural or lateral loads are carried by these foundations, or how the foundations connect to the structure or its footings. Brick underpinnings which were installed in the 1880's can still be seen via the limited access to the underside of the building which the door on the northern elevation provides, but access could not be granted to the point where the connection between these elements and the rest of the foundations could be determined.

What appears to be a wall stud is visible on the exterior of the southern elevation, due to some breakage in the lowest course of cement-asbestos shingles which are used as siding. However, this element appears to interrupt the plane of what would be the wooden sill plate. If this is the case, then this wall stud (which would be the result of an addition), appears to be improperly installed, as the sill plate should be uninterrupted in its length.

Given the level of investigation of the structural systems of the Temple which was able to be undertaken without the aid of intrusive investigatory techniques, it is very hard to definitively classify the framing system(s) used in its construction, or the connections which were employed in the floors, walls, ceilings, or foundations. The additions which are apparent in the attic have been haphazardly installed, with members being scabbed directly onto those they are immediately adjacent to. Thus, the Temple appears to lack continuity of its structural systems. The services of either a structural or preservation engineer need to be retained in order to definitively determine the systems used in the Temple's construction (both in its original and now-historic portions)

Physical Description:

The Temple which houses the Whidby Island Lodge #15, F. & A.M. is the result of 132 years of additions, modifications, and alterations to a simple wooden frame structure which was erected in 1874. It features a rectangular plan, with an east-west facing roof. The roof is gabled on the eastern elevation, and hipped, with a clipped gable louvered vent on the western elevation. Currently, the roof is clad with composite shingles, as it was replaced in 2000. The Temple's walls are currently clad entirely in cement-asbestos shingles, and they rest atop the structure's compos-

ite foundation. On the eastern elevation, the second story projects from the wall plane of the first floor, and it is supported on its outer edge by four matching fluted columns with Doric capitals. There are entrances to the Temple on the east, west, and south sides, and a steel spiral fire escape provides a means of egress from the second floor on the northern elevation. Inside the Temple, the floorplan is subdivided into a number of different spaces. The first floor contains a large open space (used for general congregations), two rest rooms, two storage closets, a food preparation area, and a kitchen. The second story contains the Lodge Room, a large space where the Masons conduct their meetings, as well as a dressing room for the initiates and officers, an Archives Room/Office, Women's Changing Room/Restroom, and the Tyler's Room, where a member's credentials are inspected before he is granted access to the Lodge Room.

Landscape Description:

The landscape of the Temple is characterized by a relatively simple, open plan. Few formally landscaped features are present, those that are being found on the eastern and southern elevations. On the southern elevation, two large planters made of 6" x 6" logs run the length of the building, and are situated one on either side of the ADA accessible ramp which leads to the entry door on this elevation (see site plan, next page). These planters are filled with Rhododendrons and other ornamental shrubs (Figures 3 & 4, below).

Figure 3: *Planter construction on east side, south elevation. Notice unique log construction.*

Figure 4: *Ornamental shrubs in western planter, south elevation.*

On the eastern elevation, formal landscaping is present along the sidewalk which runs parallel to Main Street. There are also two large bushes which have grown immediately adjacent to the exposed board-formed concrete foundations on this elevation, which are located on the north and south sides of the centrally placed stair (see figure 6, next page).

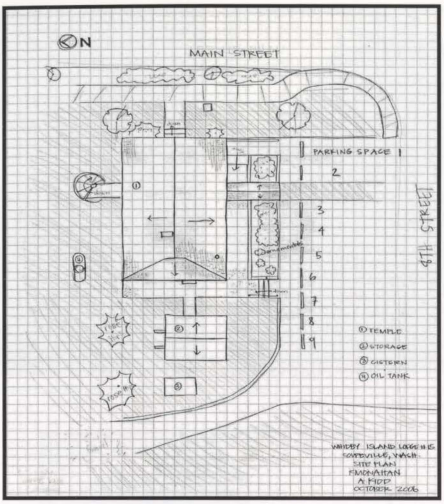


Figure 5: Site Plan of Temple as it appears today.

A number of young trees are also present on the southern elevation; these are located to the north and south of the large ornamental bushes (see figure 7, next page).

Figure 6: Large bush north side east elevation.

On the northern elevation, two large Rose Hip bushes are located on the western side of the Temple, one being placed right next to the remains of a historic tree stump (figure 8, next page). A swath of overgrown blackberry bushes form a buffer on the northwestern lot line of the Temple plot, providing an effective partial barrier between the Temple property and that of the Crawford Bungalow, built by the Masons in 1910 (figure 9, next page).[1]

Figure 7: Juvenile tree southern side eastern elevation. View looking east.

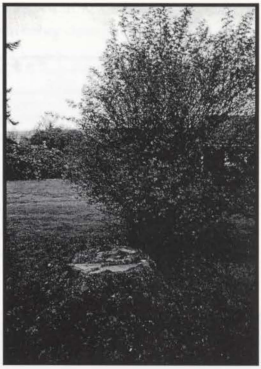


Figure 8: Large Rose Hip bush located on the western side of the northern elevation. Note historic tree stump.

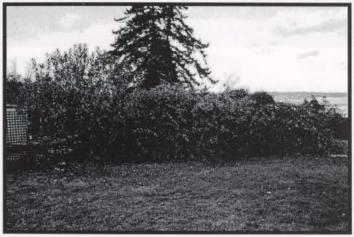
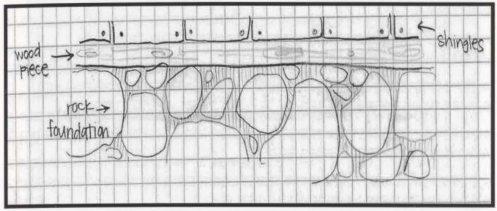


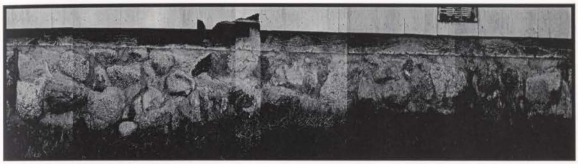
Figure 9: Overgrown blackberry bushes on the western lot line. View looking northwest.

Structural Description: The Whidby Island Lodge #15, F. & A.M. Temple sits atop a composite foundation which is the result of numerous additions to the structure over its long history. The historic foundation is formed from large field stones, and this element is visible on the northern elevation (see figure 10, next page). The southern addition of 1939 and the eastern addition of 1948 both were installed with a board-formed concrete foundation (figure 12, next page), while the western addition of 1954 features a poured concrete foundation. The foundations are

supported underneath the Temple by a series of large brick underpinnings. These were installed by Lodge member Joseph Power in 1887.[2]



Figures 10 (above) and 11 (below): *Character sketch of historic field stone foundations, which are visible on the northern elevation of the Temple. Below: Composite photograph of this element.*



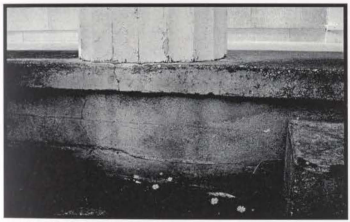


Figure 12: *Board-formed concrete foundation, as seen on the 1948 addition to the eastern elevation.*

The Temple's roof system is unique in its construction, owing to the numerous modifications which were made to it during the installation of the many additions. In form, a common rafter system is employed, along with a system of horizontal and diagonal bracing. Many of the bracing members used in the Temple roof are made from recycled pieces of historic exterior siding (see figure 13, next page). On the interior, no historic wall, ceiling, or floor finishes are visible, except in the area between the first and second floors.

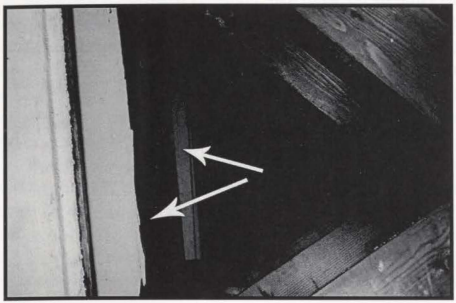


Figure 13: North side of the Temple attic, where recycled pieces of historic exterior siding have been used as vertical bracing elements. Siding has also been used throughout the attic for both diagonal and horizontal bracing members.

Exterior Elements:

Walls: The walls of the Temple are all framed with 2" x 4" studs, and covered on the exterior with cement-asbestos shingles. The walls measure 6 inches in thickness. On the interior of the building, there is evidence of lathe and plaster being used for the wall construction, a detail which may be observed in the space between the first and second floors on the eastern end of the Temple (see figure 14, below). Wooden trim pieces and facia boards measuring 4" in height are located on all corners of the Temple, and around all doors and windows. These elements have all been painted white.

NORTH: The wall plane of the northern elevation is pierced by five windows which, while not original to the structure, are historic. On the first floor, three 3-light fixed windows with wood sashes, frames, and muntins are present. All of the wooden elements on these windows have been painted white. The windows all feature wood trim which is approximately 4" tall, and this feature has also been painted white.

Figure 14: Zachary Dunlap measuring the historic lathe and plaster walls in the crawlspace between the first and second floors. Note how large this space is.

The walls of the northern elevation, like those on all other elevations, are clad entirely with cement-asbestos shingles. Precisely when this element was installed is unknown, but it is assumed that the shingles were put in place sometime before the 1948 addition on the eastern elevation was erected. As the massing of the Temple is so great, the northern elevation receives very little direct sunlight and, as a result, the walls of this elevation are almost continually damp; a condition which has resulted in rampant mold and mildew growth on nearly every surface. The fungal growth on the northern elevation walls is particularly acute in the center, or historic section of the building, and along the bottom most courses of shingles. Here, the shingles have also suffered damage in the form of breakage, a condition which is not confined to this one elevation, as the wall sheathing on the whole Temple has become weak and friable.

In addition to the windows and access door, a number of types of metal vents pierce the wall plane on this elevation. Four rectangular vents are located along the bottom shingle course, and two smaller units are present on the western side of this elevation, providing ventilation to the Temple's kitchen. All of the vents show evidence of corrosion, and the kitchen vents have an excess of glue on their lower edges.

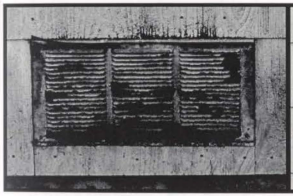


Figure 15: Lower vent northern elevation.

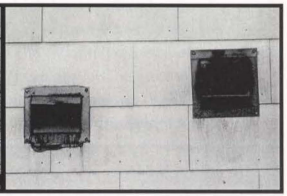


Figure 16: Kitchen vents. Note glue on lower edge left vent.

WEST: The facade of the Temple's western wall is pierced by three non-original, historic windows, which are wood, 1/1 single hung units with wood frames, sashes, and trim. An entry door also pierces the wall on this elevation. Several heavy duty wires attach to the wall of this facade at its southwest corner, and these in turn attach to the various lights, electrical boxes, and conduits on this western wall (see figures 17 and 18, next page).

The walls of this elevation are clad with cement-asbestos shingles,

which have become friable and started to break, especially along the lowest courses, and underneath the northern window on the first floor. The lowest three courses of shingles are also discolored, owing to backsplash from rain.

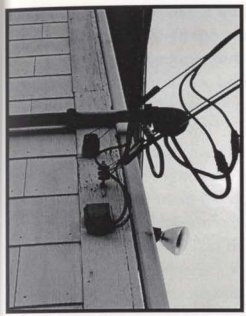


Figure 17: Plethora of wires which connect to the southwest corner of the western elevation.

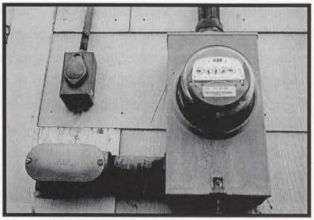


Figure 18: Just a few of the many electrical elements located on the western elevation.

SOUTH: The southern elevation serves today as the main entrance to the Temple, immediately accessible as it is from the parking lot which is also present on this elevation. As on all other elevations, the walls here are clad with cement-asbestos shingles, which have suffered some degree of degradation. The wall plane is pierced numerous times by windows and doors, and of all the elevations, this is the most asymmetrically arranged facade (see character sketch, below). There are four windows present on the south wall of the Temple, of which, only two are of the same size and configuration. Three windows are located on the first floor, two of which are 1/1 wood single hung units with wood frames, sashes, and trim. The third window on the first floor is identical to those found on the first floor of the northern elevation, it being a three light, fixed window with wood muntins and frame. The single window

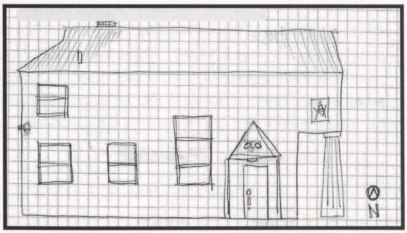


Figure 19: Overall character sketch southern elevation.

present on the second story is identical to the western most window on the first floor of this elevation, except for the fact that it does not have textured glass lights.

The cement-asbestos shingles of the southern elevation, while relatively free from mold or mildew or other fungal growth, have suffered quite a bit of damage in the form of cracked or broken tiles. Like on the other three elevations, this damage is mostly confined to the lowest shingle courses, but it also occurs in the area behind the projecting roof which covers the ADA access ramp, as well as in the upper courses on the eastern side of the wall.

EAST: The eastern elevation of the Temple historically served as the main entrance to the building, an important distinction, given the importance conferred on the east by the tenets of Freemasonry. This elevation still has a door, though it is no longer used as the main entrance to the structure. The wall of the eastern elevation is divided into two distinct planes by the large projection which juts forth from the Temple's second story. This projection is supported by four fluted Doric columns which were brought to the Temple and installed after being removed from a bank in Oak Harbor in 1948.

Windows on the eastern elevation are similar to those found on first story of its northern and southern counterparts. There are four of these elements, two on the first floor, and two on the projecting second story. All of these windows historically were three light fixed units, with wood frames and muntins, however, the glass on the second floor units has since been removed, and plywood installed in their place. This modification likely occurred when a rehabilitation was undertaken in the interior of the Lodge Room on the Temple's second story.

Shingles on this elevation, while almost free of breakage or cracking, are remarkably dirty and discolored. This is due to their physical proximity to the car traffic on Main Street, one of Coupeville's busiest thoroughfares. The cement coating on the exterior of these elements is also heavily worn here, exposing the texture of the fibrous asbestos substructure.

Roof: The Whidby Island Lodge's Temple roof is oriented from east to west, and was historically gabled at both ends. Today, only the eastern end of the roof is gabled, as an addition to the western facade resulted in a hipped roof, with a clipped gable/louvered vent at the peak. The roof's

sheathing consists entirely of composite shingles, which are in overall good condition, owing to the fact that the roof was replaced in 2000. Remnants of a historic projection on the western elevation which can be seen in the attic of the Temple indicate that the roof was historically clad with wood shingles, which varied in width from 4" to 7", and had a 9" exposure (see figure 20, below). The eaves of the Temple roof are trimmed with 4" wide wood pieces which have been painted white. These elements are in good condition, except on the northern elevation, where a 3 1/2' section has rotted away on the western edge of the wall.

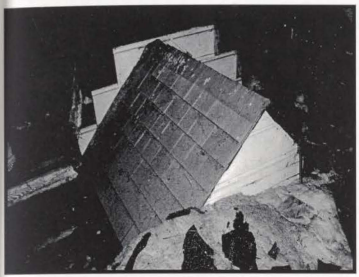


Figure 20: *Remnants of a historic gable-roofed projection on the eastern elevation, which still has its original shingles. Note also the presence of the historic wood lap siding.*

Currently, the structure of the roof is stable, but there is noticable deflection on both the east and west ends (see photographs and sketch, below, and next page). Inspection of the attic space did not reveal any water damage, mold, or other conditions which could be causing the deflection, so it is likely the result of improper framing of the numerous additions to the Temple over its long history.

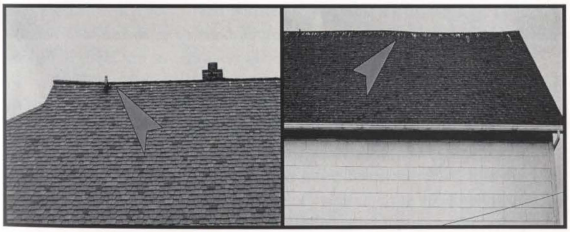


Figure 21: *Deflection on western end of Temple roof. View looking north.*

Figure 22: *Deflection on eastern end of Temple roof. View looking north.*

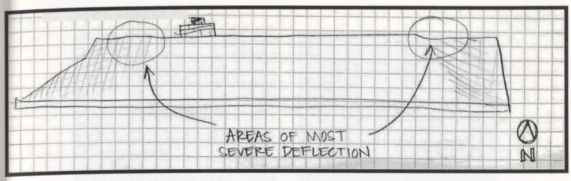


Figure 23: Sketch of Temple roof as seen from the south, showing areas of most severe deflection.

Foundations: The Temple foundations are an amalgamation of different types, owing to the many additions to the structure over the years. The different types can most easily be seen on the northern elevation, where approximately two feet of the foundations have been left exposed, owing to the changing grade of the landscape. The historic portion of the foundation is constructed of large, natural boulders which show no evidence of tooling. The southern and eastern additions were installed with board-formed concrete foundations, while the foundation of the western addition appears to have been poured. All of these elements are in good condition, with the exception of a large crack on the northern elevation in the board-formed concrete section on the eastern end. This crack is approximately 1/4" thick, and starts about 13' from the eastern end of the building.

Windows: The windows on the Temple vary greatly in their size, shape, and configuration. All of them have wooden frames, sashes, and trim pieces, which have been painted white, and a number also have wooden muntins (also painted white). Every elevation contains windows, and all of them are in relatively good condition.

NORTH: The northern elevation contains four windows, three on the first floor and one on the second. The first floor windows are of a three light fixed configuration, and feature wooden muntins painted white. On the second story one window, which was likely identical to those on the first floor at one time has since been converted into an emergency exit door for the purposes of accessing the steel spiral fire escape on this elevation. The fourth window which pierces the wall plane on this elevation is located on the second story, towards the western edge of the wall. It is of a different configuration than the other windows, being square, with 1/1 wood single hung lights. This window also has a wood frame and sashes, as well as wood trim pieces (see photographs of

window types, below).

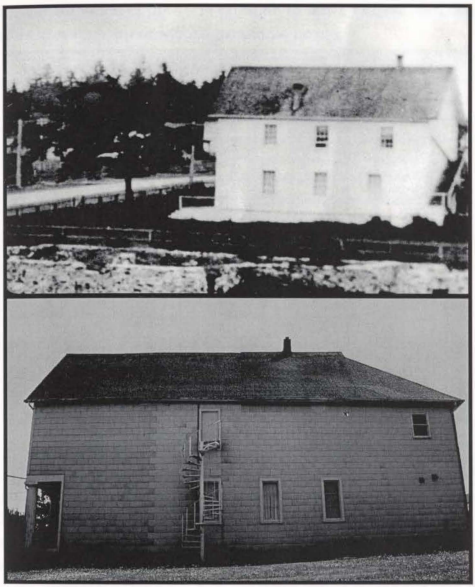
Figure 24: First story window, northern elevation.

Figure 25: Former window, now exit door, north elevation.

Figure 26: Second story window, northern elevation.

The three-light fixed windows on this elevation, though not original, likely utilize the original window openings for this elevation. Historic photographs from the 1880's through the 1940's show the Temple as having 6/6 wood double hung windows. A photograph from circa 1900 indicates that these original windows were roughly the same size, shape, and configuration as those currently present on this elevation (see historic and modern photograph comparison, next page). Historically, six windows were more or less symmetrically placed on this elevation. If the window openings on the first floor are, in fact original (which is likely, as this elevation is the only one which has NOT received an addition), then three identical windows would have been historically located directly above their first floor counterparts on the Temple's second story. The exception to this was the western most window on the second floor, which was offset slightly towards the edge of the building. Currently, only one of these historic window openings is present on the Temple's second story, the other window openings being filled in, likely for added privacy in the Lodge Room during meetings. A hand drawn postcard of the Temple from the 1950's shows the 1948 addition

to the eastern elevation with its columns, but with 6/6 double hung windows. If this drawing is credible, then the windows were likely modified during the 1954 addition to the western elevation.



Figures 27 (Above) and 28 (Below): *Photograph of the northern elevation of the Temple circa 1900, and a modern composite photograph of the same elevation. Notice the similar window configuration.*

WEST: The windows on the western elevation are, like their northern counterparts, varied in their size and shape. In all, there are three windows on this elevation, one on the first floor, and two on the second story. The first story window is roughly square in shape, and is of a 1/1 single hung configuration. This window looks into the Temple Kitchen, and features a wood frame, trim, and sashes, all of which have been painted white. The second story windows are identical to the western-most window on the northern elevation. This unit is rectangular

in shape, and is also of a 1/1 single hung configuration. While none of these windows are original to the building, they are all historic. It seems as though all of the windows on the Temple were put in place during or before the installation of the 1954 addition to this elevation. See drawing of western elevation window configurations, below.

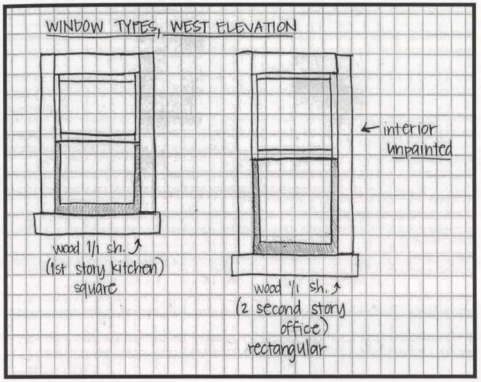


Figure 29: Sketch showing the various window configurations present on the western elevation. On the left, the first story window is pictured, and on the right, the second story units.

While all of the windows are in relatively good condition, some damage to the wooden elements was noted at the time of assessment. This damage is relatively minor, and is mostly related to chipped or cracked paint on the window sills. Details on the window condition will be discussed in length in the assessment portion of this document.

SOUTH: There are four windows which pierce the wall plane on this elevation, three on the first floor and one on the second. The two first story windows on the western side are small, 1/1 single hung units with wood frames and sashes. The third window on the first story is much larger than these previous two. It is a fixed three light window which is rectangular in shape, and features a wood frame and muntins. The window which is located on the second floor of the southern elevation is a duplicate of the first story window on the far western edge of this wall. The two western-most windows on the first story, along with the second story window were likely installed when the western Temple

addition was erected in the mid-1950's. The large window on the first floor is likely a retrofit of the original window frame, and it is very similar to the windows found on the northern and eastern elevations. See drawing of window configurations, below.

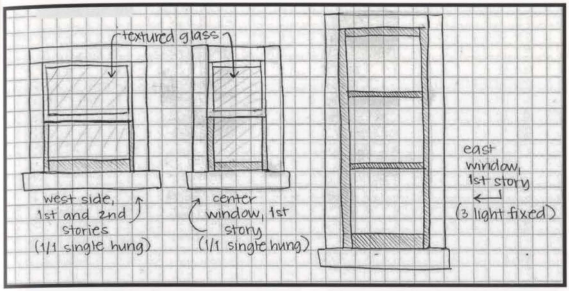


Figure 30: Sketch of the various window configurations present on the southern elevation.

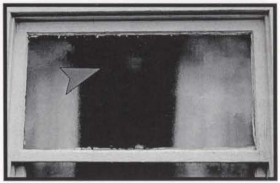


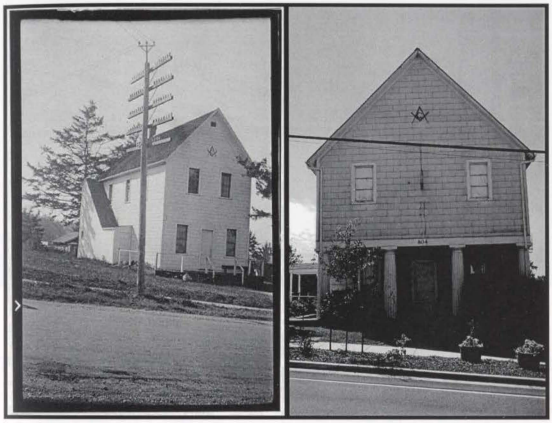
Figure 31: Western first floor window on the southern elevation, which features textured glass lights.

The single hung windows on the first floor feature textured glass, as they both look into first floor restrooms. None of the other windows on the Temple have textured glass lights. All of the windows of the southern elevation are in good condition, all damage being either cosmetic or easily reparable. The worst of this damage is present on the large, first floor window, which has lost some of its glazing.

EAST: Four windows are located on the eastern elevation of the Temple, two on the first and two on the second story. These units are spaced so as to make this the only roughly symmetrical elevation on the structure. Historically, the windows on this elevation were placed in roughly the same configuration as they are seen here, though instead of being three light fixed units with wood muntins, they were wood 6/6 double hung windows (see historic photographs, next page).

The two second story windows have had the glass removed, and sheets of plywood painted white have been inserted in its place. As the

present configuration of this elevation is the result of an addition in 1948, it is assumed that these windows were originally installed with glass lights, as it would be non-sensical to frame in window openings and not utilize them. The plywood inserts are likely the result of modifications to the interior of the Lodge Room which occurred at a later time. The frames of these two non-functioning windows match those on the first floors of the north and south elevations.



Figures 32 (Left) and 33 (Right): *Historic view of the Temple's eastern elevation, and a modern view of the same facade. Note how the eastern elevation was historically symmetrically designed as well.*

The windows on the eastern elevation's first floor are nearly identical to those on the second, excepting their top trim pieces, which are about 1 1/2" shorter height wise than their second story counterparts. Like the second story windows, these are three light fixed units, with wood muntins and frames. Here, the wood has been painted white on both the interior and the exterior. This is contrary to most of the windows on the second story, which have only been painted on the exterior. See historic photograph which shows the windows of the eastern elevation in detail, next page.

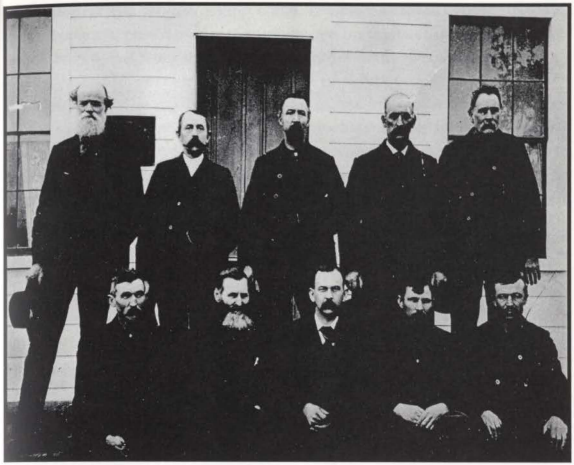


Figure 34: Photograph circa 1880 of some of the earliest Lodge members in front of their Temple. Notice the historic windows in the background, as well as the sign which says "Doctor." This was taken during a time when the Temple's Lower Hall was retrofitted and rented to various local doctors for use as their residence/businesses.

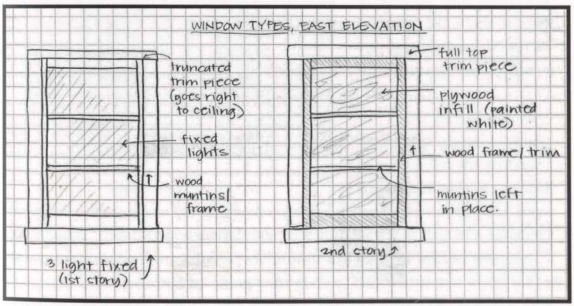


Figure 35: Sketch of the various window configurations on the eastern elevation.

Doors: The Whidby Island Lodge Temple has three exterior doors, as well as an access door for the fire escape on the northern elevation which only opens from the interior. The other doors are present on the south, east, and west elevations, and are of varying configurations.

NORTH: The northern elevation features a single door. It is located on the second story of the Temple, and provides a means of egress from the interior to the steel fire escape which is located on this elevation. This element was built into a historic window frame, and thus is severely truncated in its height. Further discussion of this door will be made in the section of this document which discusses the interior of the Temple, as the northern door cannot be opened from the exterior.

WEST: On the western Temple elevation, there is a single door, which is located towards the south side of this facade (see drawing of western elevation, figure 36, below). The door is made of wood, painted white, and features four decorative, inset panels. This door appears to be historic, but it is unknown whether it is original to the Temple. It is of a configuration which is remarkably similar to that of the original front door (see figures 37 and 38, next page), so it is possible that one of the historic doors was re-used on this elevation when the addition was added in 1954.

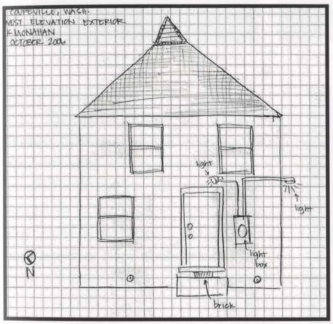


Figure 36: Character Sketch of the western elevation showing rough placement of door, windows, and electrical elements.

On the interior, a number of doors of this same design which bear the marks of historic locking mechanisms have been recycled as the doors for two first floor storage closets. This fact gives credence to the theory that this is a historic element which has since been rehabilitated. The door on the western elevation is surrounded by wood trim pieces, and features a wood sill, all of which are painted white. The door sill sits 11" above the ground, and 4" above a concrete step. Due to this discrepancy in spacing, a standard brick has been installed to support the door sill on its underside (see

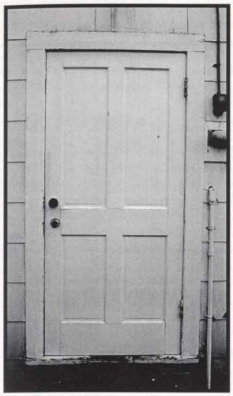


Figure 37: Western door, which is possibly a historic element.

Figure 38: Detail of the Temple's original front door.

sketch, figure 40).

It is curious that the western Temple door sits so high above the concrete step which is placed underneath it that its sill must be supported by a brick. The door on the eastern elevation has a sill which sits atop another trim piece which, in turn sits directly atop the floor of the concrete porch. Thus, the step is only about 3" from the ground. Could this design once have been repeated on the western elevation? It is uncertain whether the current door configuration on the eastern elevation is the result of a miscalculation during construction planning, or whether it is the result of modification to the foundations of this elevation. As this entire facade is the result of an addition,

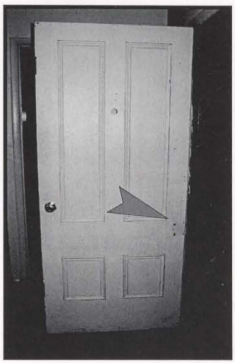


Figure 39: Interior door to storage closet, which is probably a historic element. Arrow denotes where historic lock was placed.

it seems odd to have such discordancy in the various elements unless they are the result of miscalculation or modification.

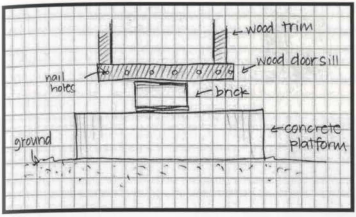


Figure 40: Sketch showing the configuration of the various elements which support the door sill on the western elevation.

SOUTH: There is one door which is located on the Temple's southern elevation. It is located on the eastern half of the wall, and it is covered by a projecting gable roof. This door serves as the main entrance to the Temple, and it is accessed via the parking lot which abuts this elevation. There is a concrete ramp which leads from the parking lot to this door, making the entrance ADA accessible. The ramp has been adorned with two metal Masonic Emblems, which have been embedded in the eastern and western corners of its upper slope (see sketch, figure 42, below).

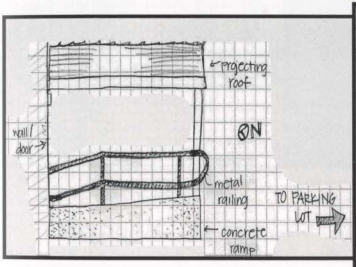


Figure 41: Sketch showing the configuration of the projecting covered access ramp on the south elevation.

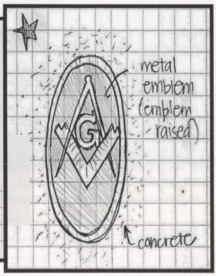


Figure 42: Sketch of Masonic Emblem which is embedded in the concrete ramp

Surrounded by 4" trim pieces painted white, the door on the southern elevation of the Temple provides the best clues as to the historic appearance of the structure. Here, the trim piece on the eastern side of the door has been recently removed, exposing a section 3" wide and 11 courses tall of the historic wood drop siding; which remains in tact underneath the current cement-asbestos siding (see sketch and photograph

of these elements, below). It appears as though the siding was always painted white, as no evidence remains of any other color being used on this element, and historic photographs dating back almost to the time of construction show the Temple as a white structure. A gap exists between the door frame and this historic siding, and this space has been filled in with yellow insulating foam. In areas, this foam has expanded to cover sections of the historic siding.

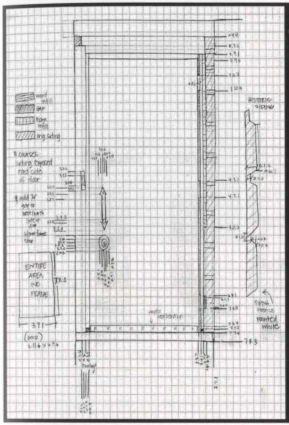


Figure 43: Sketch for measured drawing of southern entrance door of the Temple.

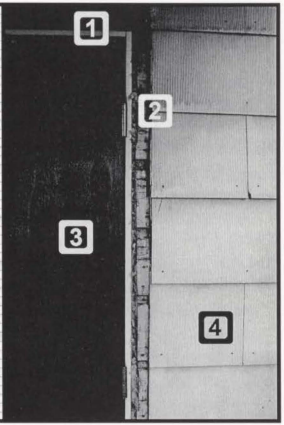


Figure 44: Photograph showing (1) the missing door trim piece, (2) exposed historic siding, (3) door, and (4) the cement-asbestos siding.

EAST: There is a single door present on the eastern elevation. It is located on the first story, and is placed more or less equidistant from the two windows on the north and south ends of the eastern wall. The door can be accessed from the parking lot on the south side of the Temple via an ADA accessible ramp; however, the door itself is NOT ADA accessible, it being raised above the floor of the concrete porch and requiring a step up to gain entrance.

This door may also be accessed from the east via a concrete walkway which connects to the public sidewalk and two concrete stairs. The door is not original to the Temple, nor is it historic. Both the lock-

ing mechanisms and the interior hardware were replaced in the last 15 years.[3]

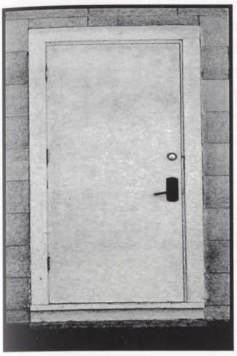


Figure 45: The front door of the Temple, eastern elevation. The door is not historic, but the frame may be.

Small Scale Features: A number of small scale features, including lighting, electrical, and decorative elements are present on each elevation; and these are numerous and varied enough to warrant their own detailed discussion. What follows is a detailed inventory of these elements.

NORTH: The northern elevation of the Masonic Temple features a number of small scale features, including lighting elements, decorative details, and a spiral staircase. All of these elements are important for defining the character of this elevation, and each merits discussion.

Lights: Every elevation of the Temple features at least one lighting element, and every one of these is unique. On the northern elevation, the lighting units are positioned in a T-shaped configuration, and they are placed over the access door to the second story which is situated at the top of the steel fire escape. The individual lights feature a bell-shaped base, and standard socket light mounts. They are connected to one another via two lengths of conduit which meet and then run down the building, hence the "T-shape." The lights are turned on by a switch on the interior of the Temple, which is located in the Lodge Room.

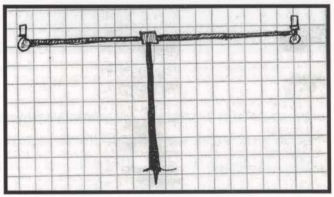


Figure 46: Sketch of the lighting elements on the northern elevation.

Decorative Details: While the Temple is relatively free of ornamental or decorative detailing, those elements which are present assert themselves in subtle, yet effective ways. For example, nearly all of the concrete elements feature a 2" raked detail on their outer edges. The large concrete pad on the eastern

side of this northern wall which supports the steel fire escape is no exception. Blocky and simplistic in its design, the concrete pad is very utilitarian, as are most of the elements of the Temple. By giving the concrete a tooled edge, however, it becomes more sophisticated, and speaks of the fine craftsmanship inherent in historic structures.

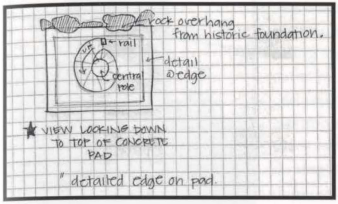


Figure 47: Sketch showing the raked edge detail of the concrete pad on the northern elevation, as well as the overhang of the historic rock foundation.

Another detail present on this elevation, though its purpose is utilitarian rather than architectural, is the historic wooden access door on the western half of the wall. Made from planks of wood, and featuring metal hardware, the small door provides access to the Temple foundations, as well as glimpses of the historic brick underpinnings and chimney base. Water has eroded the bottom edges of the individual planks which form the access door, but this has not reduced the element's charm, nor its functionality.

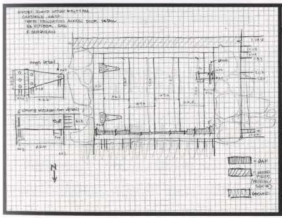


Figure 48: Measured drawing of the wood access door, north elevation, with hardware details.

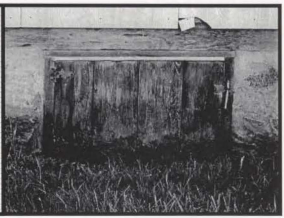


Figure 49: Photograph of the same element in situ.

Of all of the so-called decorative elements visible on this elevation, the large fluted Doric Columns which support the projecting second story of the eastern wall could be called the most ornamental. When looking south at the northern elevation wall, a single column is visible on the eastern end of the facade. Its stature is imposing, and it lends an air of classicism to the structure which it historically did not have. The

massive columns are made of wood, and have been painted white. While they are structurally quite solid, cosmetically they are only in fair condition. The paint has begun to bubble and crack, and it has come off completely in some areas (see figure 50, below).

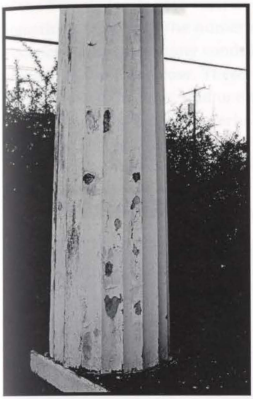


Figure 50: Detail of northern elevation column showing extent of paint degradation and loss.

Spiral Fire Escape: Though this element is neither original, nor historic (installed in 1964), the spiraling steel fire escape which is located on the northern elevation could certainly be classified as one of this elevation's character defining features, and therefore it warrants mentioning. Constructed of 1/2" thick diamond-pattern steel plates and 1" by 1/2" rails, the steel fire escape is an elegant, if incongruous solution to the need for an escape route in case of a fire in the Temple.

The installation of the fire escape necessitated the removal of a historic window from the second story (now a door), and the blocking of the natural view shed from a first story window. The staircase contains twenty-three triangular risers and a central platform, and rises almost the full height of the building. It is anchored to the ground via a 6' by 6' 4" wide concrete platform with decorative tooled edging, and is supported by a centrally located steel pole with a 1' 10" circumference. The risers, railings, stiles, and pole have all been painted white. Continual water penetration on this elevation has left these elements mold covered and slippery.

Figure 51: View of the steel fire escape looking east.

WEST: The western elevation of the Temple is similar to the northern elevation in that it too has a number of small-scale

features which warrant discussion. Decorative elements on this facade are almost nonexistent, and so most of the small scale features are electrical or utilitarian in nature.

Lights: As has been previously mentioned, the western elevation of the Temple is rife with various electrical elements, most of which have something to do with the numerous lights on this facade. A number of electrical boxes and many conduits are fastened to the wall on the southern side of the entry door. These, in turn light a lamp which is positioned directly above the door, and one street lamp type fixture, which runs parallel to the wall plane and overhangs the concrete apron on the southern elevation. The light over the door resembles those found on the northern elevation, in that the fixture is bell shaped (like a desk lamp), and contains a standard socket base. The other light is dome-shaped with a domed light cover and internal lighting elements.

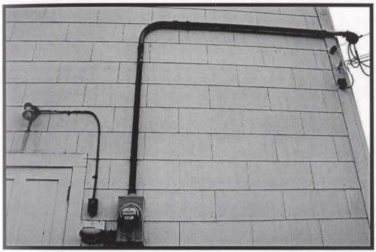


Figure 52: Photograph showing the various lighting elements on the western elevation.

Other Elements: Besides the trim pieces which surround the doors, windows, and corners of the Temple on every elevation, the only other semi-decorative element on this elevation is the concrete step underneath the door, which has been painted green and features a raked edge detailing. This detailed edge is similar to that found on other concrete small-scale features around the Temple, including the pad on the northern elevation, and the ramp on the southern elevation.

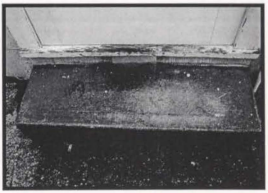


Figure 53: Step on the western elevation with decorative edge.

SOUTH: If the western elevation is the most simple in regards to its number of small-scale features, then the southern elevation could certainly be classified as the most complex. This facade features three

distinct lighting fixtures, a lighted Masonic emblem, a projecting porch, and some small metal decorative elements.

Lights: Of the three lighting types on the southern elevation, two are for the purposes of general exterior lighting, and one is more for decoration. The aforementioned "street lamp" style light which overhangs this elevation, but is actually attached to the wall of the western elevation provides nighttime illumination for the exterior of the building on both the southern and western elevations. Besides this unit, a pair of lamps is located on the gable end of the roof projection. These lamps can be activated via a switch on the back side of one of the roof's support poles, or from a motion sensor which is centrally located between the two lights. These lamps are effective for lighting the parking lot and deterring vandals, as they are motion activated (see drawing, figure 54, below). The third lighting element on the southern elevation is also contained within the area of the projecting gabled roof, though this is more decorative and for subtle illumination of the southern door. It is trapezoidal in form, and features 3/4" wide metal bands which house individual glass lights.

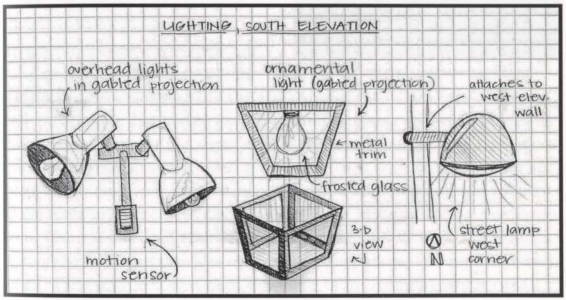


Figure 54: Sketch showing the configurations of the various lighting elements present on the southern elevation.

Decorative Elements: Decorative or ornamental elements located on the southern elevation are varied, and include lighted and metal Masonic emblems, and tooled concrete work. The cast metal Square and Compass emblems which are embedded in the ramp which leads to the southern door have already been discussed in previous sections of this chapter. A lighted Masonic emblem is located on the far eastern side of

the southern wall, very close to one of the fluted Doric columns. In essence, it is a metal box with a translucent plastic panel, upon which a metal Square and Compass emblem which is covered with metal mesh is placed. The box is lit from within, illuminating the emblem.

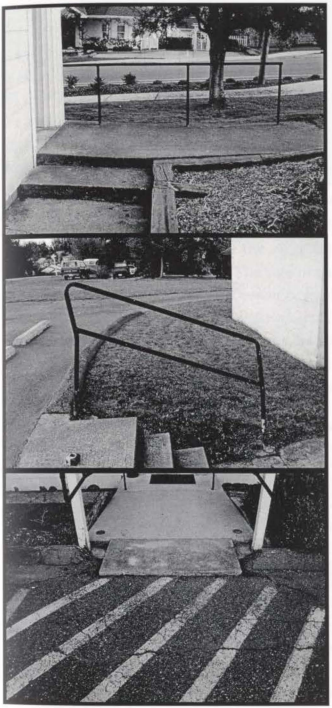
The concrete ramp which leads from the Temple parking lot to the southern door features the same decorative tooled edge as the step on the western elevation and the pad on the northern one. It is within this ramp that the two metal Masonic emblems have been embedded. This elevation also features decorative wood trim pieces around all of its doors and windows.

Figure 55: Lighted Masonic emblem on the southern elevation.

Stairs: A number of stairs constructed of concrete are located on this elevation, and provide access to various portions of this facade. To the east, two steps are located coming off of the ADA accessible ramp which leads to the eastern porch. This provides access to the foundations and lowest portions of the southern elevation, as well as the planters, but not the south entry door, as it is raised up on a concrete platform and surrounded by metal railings. This fact hints that access to this door was once gained via a stairwell or other element which could have been accessed from the eastern or western sides of this elevation. There is a second stairwell located on this elevation, to the western end of the facade. It provides access from the parking lot to the foundations of the southern elevation, as well as to the sidewalk which runs past the western elevation. As the terrain of the Temple plot is uneven and hilly, one must descend in order to reach the "ground" level of the Temple from the parking lot. These stairs grant that access (see images of stairs, figures 56 and 57, next page).

Ramps and Railings: Besides the aforementioned access ramp to the southern door, another ramp exists on this elevation. It is located on the eastern edge of the structure, and provides ADA access from the parking lot to the concrete porch on the eastern elevation. This ramp is

edged by a metal railing made of circular tubing, which has been painted black. This railing is similar in construction to those which border the central ADA access ramp, as well as the western stair on this elevation.



Figures 56 (Above), 57 (Center), and 58 (Below): Ramp and railing, east side, southern elevation, view looking east; stairs and railing, west side, southern elevation, view looking west; and central ADA accessible ramp to southern door, view looking north.

Other Elements: From the southern elevation, the modified historic brick chimney can be seen protruding from the western half of the roof at its peak. There is also a small metal vent pipe which projects from the roof on this elevation, appearing on its western end.

EAST: Of all of the Temple's elevations, the eastern facade is probably considered to be the most "ornamental." Here, four large fluted Doric columns have been installed, and they are the most overtly decorative element on the Temple. There are also a number of small emblems located on this elevation, these are placed within the second story gabled projection.

Lights: A single light is present on the eastern elevation. It is a single globe fixture made of glass, and it is located on the bead board ceiling of the porch (see figure 59, next page). This light is not motion activated, and can only be turned on from the interior of the Lower Hall.

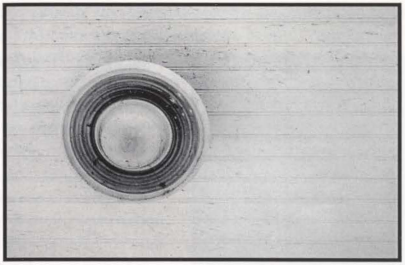


Figure 59: Light fixture on the eastern elevation. Notice the bead board ceiling of the porch.

Decorative Elements: A number of Masonic emblems are located on this elevation, most notably the large Square and Compass emblem in the peak of the gabled roof. The age of this particular item is indeterminate. In his History, Frank Coates remarks that a similar emblem was donated to the Lodge in 1897 by Brother C.H. Stackpole and installed in this space, but that the possibility exists that the emblem was "carelessly thrown away" during the 1946 addition to this elevation.[4] This remark likely means that the current emblem is a replica (see figures 60 and 61, below).

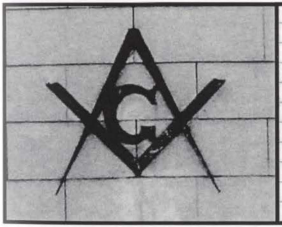


Figure 60: Masonic Emblem in gable peak on eastern elevation.

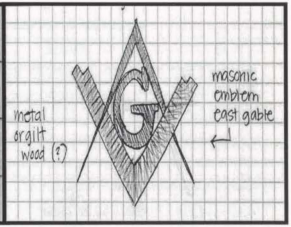


Figure 61: Sketch of the Emblem.

Also located on this elevation is a lighted Masonic Emblem which projects from the second story. It is centrally located between the two second floor windows, and its lighted portions face north/south. There was formerly another one of these lighted elements located underneath the first, which has since been removed. Corrosion stains on the cement-

asbestos tiles indicate this element's former placement, and photographs indicate that this was a DeMolay emblem.

Columns: There are four massive, fluted columns with Doric capitals which support the projecting second story of the eastern elevation. These elements are not original to the Temple, though they are historic, both in the date of their construction, and in the date of their installation. These columns came from the Oak Harbor branch of Everett Bank, which was built in 1910. In the 1940's, a member of the Lodge purchased the bank building for the purpose of remodeling it, and so donated the columns to the Lodge to be installed on the Temple. The installation occurred with the addition to this elevation in 1946.

Figure 62: Photograph showing the various emblems located in the eastern elevation's gabled second story projection. Corrosion stains suggest where the second lighted element was once located.

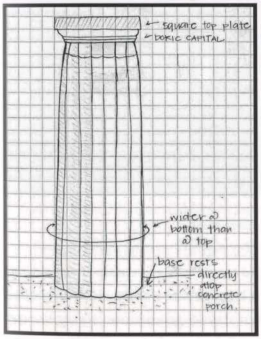


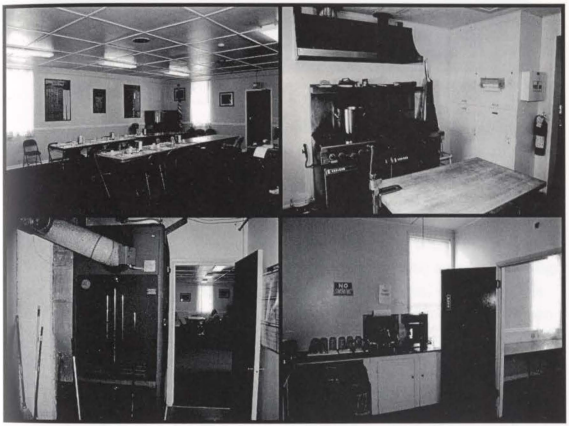
Figure 63: Overall character sketch of the fluted Doric columns, eastern elevation.

Interior Elements:

Walls: As one can easily see, the exterior facades of the Temple have been very heavily modified during its 132 year history. These modifications, however, pale in comparison to those which have taken place on the interior of the Temple, both in their sheer number, and in their severity. The multiple additions to the exterior of the structure have resulted in both the creation of numerous new spaces on the interior of the Temple, and the modification of existing ones. Wall treatments, ceiling heights, and floor coverings have changed, as have

small-scale features. While no photographs exist of the historic interior of the structure, Lodge meeting minutes provide small clues as to how these spaces have changed over time. As very little concrete evidence exists to definitively say what changes have occurred on the interior and where, this inventory will make little mention of historic finishes, unless evidence which can substantiate these statements exists.

FIRST FLOOR: The first floor of the Whidby Island Lodge Temple is subdivided into many spaces, which include the Lower Hall (now used to host large congregations), separate Men's and Women's Restrooms, two storage closets, a Reception Area, Kitchen, and a large open room which houses the furnace and part of the historic brick chimney (see images, below).



Figures 64 (Top Left), 65 (Top Right), 66 (Bottom Right), and 67 (Bottom Left): Lower Hall, Kitchen, Reception Area, and Furnace Room (note historic chimney to left of furnace, painted white).

The walls of the Temple's first floor today are sheathed with drywall panels, and either painted or wallpapered. There is evidence that historically the walls were constructed of lathe and plaster, and calcimined (a type of paint containing powdered pigment and zinc). In the crawlspace between the first and second floors, the original lathe which formed the

understructure of the interior walls can be observed, as can portions of the original ceiling, and the historic wall finish (see figure 68, below).

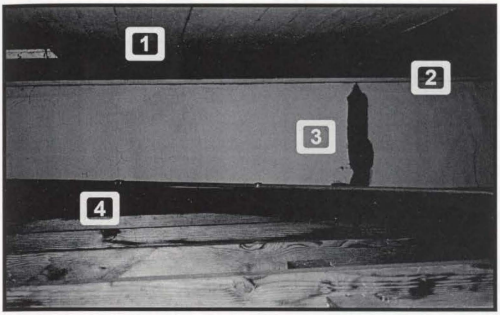


Figure 68: *Original ceiling and wall finishes for the Lower Hall, first floor of Temple. (1) Historic Ceiling. (2) Wall trim. (3) Calcimining (historic wall finish). (4) Joists which support current Lower Hall ceiling.*

In most of the rooms of the Temple's first floor, the drywall sheets have simply been finished by painting them. This is the case in all of the spaces excepting the Women's Restroom and the two storage closets. In the Lower Hall, the walls were painted a bright Robin's Egg Blue color in the last 2 years, and the various trim pieces were painted bright white. All other walls which have been painted were painted white. In the Women's Restroom, gold and white embossed wallpaper with a tapestry design clads the walls. In the area above the toilet in this room, water seepage has occurred, staining the wallpaper. The two storage closets, which are located in the hall which runs down the south side of the western half of the Temple, have been framed with plywood, and no surface finishes have been applied to this material.

In all of the rooms of the Temple's first floor, excepting the storage closets, baseboard and ceiling trims have been applied. This condition is true throughout the interior of the Temple, and these trims are one of the few decorative elements in this otherwise rather plain structure. In the Lower Hall, four different types of trim have been installed, and these are all of varying intricacy (see figure 69, next page).

SECOND FLOOR: As on the first floor, the wall finishes which are currently present on the second story have been heavily modified. Dry-

In both the Archives Room and the Women's Changing Room, the area of the wall which lies below the molding piece towards the top of the wall has been painted Robin's Egg Blue, while the areas above this piece have been painted white. Due to the fact that the ceiling in both of these spaces is also white, this feature gives the appearance that the ceiling has been vaulted.

In the changing room for the initiates, which is on the north side of the building, no wall treatments are visible at all, as floor to ceiling built in cabinets have been installed. These are made of wood, with a light stain finish. The Tyler's Room has also been painted in the bright Robin's Egg Blue that is so pervasive in the Temple's interior rooms. The Lodge Room, which has undergone heavy modification, has the most carefully planned wall coverings. On the eastern wall of this room, two historic windows were covered up on the exterior with plywood, and then again on the interior with drywall and faux wood panelling. This deliberate modification was likely done to increase the privacy in the Lodge Room during meetings. This ploy was repeated on the northern wall, where another window was covered up (though this was likely done at a different time, as the window was covered on the exterior of the Temple as well.

As on the first story, all of the rooms of the second floor have trim pieces at their baseboards and ceilings. These are variable by room, and most are very simple in profile. All of the walls of the Temple interior are in good condition, as all of the surface treatments have been relatively recently applied. As previously noted, the exception to this rule is found in the first floor Women's Restroom, where water has begun to seep through the walls and stain the wallpaper.

A number of built in elements are present in the Temple interior, both on the first and second stories. These can be found in the Kitchen, Reception Area, Tyler's

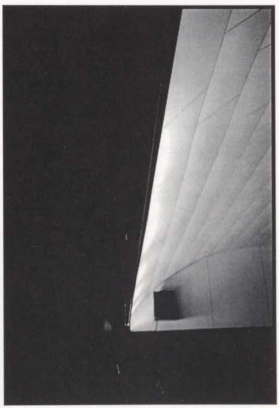


Figure 74: *Northern and eastern walls of the Lodge Room interior. Both of these walls were modified to cover historic windows.*

Room, and changing room especially. In the area of the Tyler's Room, a door has even been built into the wall which allows access to the attic of the Temple from the second floor (see images, below).

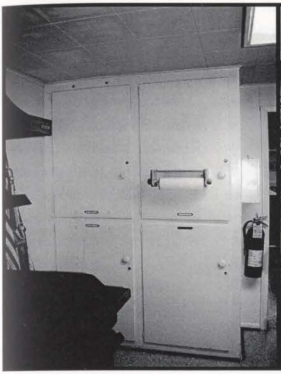


Figure 75: Built-in cabinets in the Temple Kitchen.

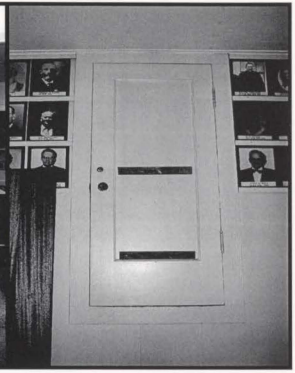


Figure 76: Built-in access door to the attic, Tyler Room, second floor.

Ceilings: The ceilings of the Temple interior, like the walls, are highly variable both in their surface finishes and their configurations. On the first floor, for example, the ceiling heights vary greatly, changing from room to room.

FIRST FLOOR: The ceilings on the Temple's first floor feature many different surface finishes, as well as great variation in their heights. For example, the ceiling of the Lower Hall features 1" x 1/4" battens which border 4' x 4' panels. These elements have all been painted white with a semi-gloss paint (figure 77). The ceilings of the Kitchen and Men's Restroom have been sheathed with 6" x 6" acoustic tiles, and those of the Women's Restroom and the hallway have simply been painted. In the areas of the two storage closets on the first floor, no ceiling finish has been applied. The ceilings, like the walls, were framed with

Figure 77: Batten ceiling detail in Temple's Lower Hall.

plywood, and were left unfinished.

The ceiling heights on the first floor of the Temple are highly variable, owing partially to the many modifications which have been made to the interior of the structure. In the Lower Hall, the ceilings currently measure 9' in height, though evidence in the crawlspace between the floors suggests that these were originally 14' tall (see figure 78, below). The ceilings in the Kitchen and Reception Area are also 9' tall. Variability in the ceiling height does not follow any prescriptive system, as rooms immediately adjacent to one another, such as the Men's and Women's Restrooms have different ceiling heights (8' and 7 1/2', respectively). The hallway which runs outside the two restrooms and contains the storage closets on its north side also has a ceiling which measures 8'. The hallway bisects the Furnace Room on its eastern end, and the ceiling of this space rises greatly, capping at 12'.

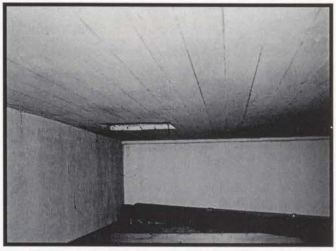


Figure 78: *Crawlspace between the first and second floors over the Lower Hall reveals the original ceiling and wall finishes for this room.*

All of the ceiling finishes of the first floor remain in fairly good condition. The Kitchen ceiling is stained and discolored, presumably from grease and heat from the industrial stove, and there was minor deflection observed in the ceiling of the Lower Hall. These issues are mainly cosmetic, and pose no real risk to the longevity of the structure.

SECOND FLOOR: The ceilings of the Temple's second story, like those of the first, are variable both in their surface treatments and their heights. Historically, the ceilings in each of the rooms of this story were likely of a uniform height. However, modifications in the area of the Lodge Room have resulted in a much higher ceiling than can be found in the rest of the rooms of the Temple.

All of the rooms of the second story excepting the Lodge Room feature 9' tall ceilings. In the Lodge Room itself, the structure of the ceiling was modified (date unknown, but after 1956, making the alteration non-historic), resulting in a large span, barrel-vaulted ceiling (refer back to figure 73 for a close-up view of this element) which is 14' 1/2" tall at its

center. The surface of this ceiling has been finished with 1' x 2' accoustic tiles. Lodge meeting minutes from the last half of the 20th century make frequent mention of the need for a better sound system in the Lodge Room, so it may be safe to assume that the modifications to the ceiling in this room were meant to improve the sound-quality in this area. It is also a documented fact that historically, Temples would be constructed with some measure of sound proofing in their meeting rooms; so the addition of acoustic tiles (paired with the filling in of windows on this floor) could have also been undertaken for this purpose.

For the most part, the ceilings in the other rooms on this floor have simply been painted, though the Women's Changing Room has been fitted with the same 6" x 6" acoustic tiles as those which clad the ceiling of the Men's Restroom on the first floor. All of the ceiling finishes on this story are in good condition, and show no signs of deflection or other structural instability.

Flooring: None of the original floor finishes exist in the Temple, and it is not discernible from any of the crawl spaces what the original flooring material may have been. Given the age of the structure, it could easily be assumed that the floors were originally made of hardwood, but as no evidence exists to support this fact, it will remain in the realm of conjecture. Currently, floor coverings throughout the Temple are variable, and include vinyl, plywood sheets, and carpet. The entire second floor of the Temple is carpeted, though the carpet is not of the same type throughout. All of the carpet is however, of one blue shade or another.

On the first floor, the Lower Hall and the stairs have been clad in a blue carpet which is heavily stained despite its recent installation (less than 5 years). All of the other rooms excepting the storage closets have been floored with vinyl tile. In the storage closets, the floors, like the walls and ceilings, have been left unclad, and are simply constructed of plywood sheets. All of the floors of the Temple have suffered visually from years of frequent use. For the most part, this condition has manifested itself in the form of stains and other slight imperfections in the flooring material. The only area which raises concern about the structural stability of the floors themselves is the Lower Hall, which shows a noticeable unevenness in its floor structure.

Attic: Of all of the areas of the Temple which have so far been inventoried, none yields as many clues about the evolution of the struc-

ture as the attic does. Accessed via a small door in the wall of the Tyler's Room on the second floor, the Temple's attics are an amalgamation of building systems, at once bewildering and fascinating to behold.

Historically, the Temple was simply configured, being rectangular in form with small projections on the south and west ends; and featuring an east/west gable roof. As such, the historic rafter system was rather straight forward; it being comprised of a series of common rafters which ran the length of the temple. Evidence of the original end bay and its rafters is visible on the western half of the Temple, as well as the expansion to this system for the 1939 southern addition, where pieces of original exterior siding and historic nailers for the roof's sub sheathing are still in tact (see figures 79, 80, 81, and 82 below, and next page).

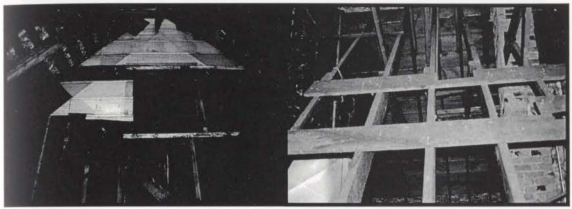


Figure 79: The original western gable end of the Temple roof is still visible in the framing of the attic rafters. Note the historic siding.

Figure 80: The nailer boards for the sub-sheathing of the original roof as still present in the attic.

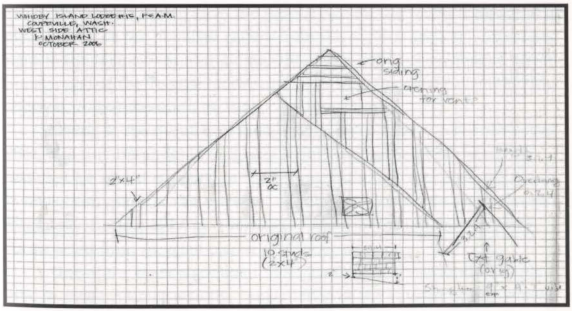


Figure 81: Rough sketch showing the bay at the western end of the Temple attic. The original framing for the historic roof is apparent, as are the modifications which were made when the addition to the south side of the Temple was installed in 1939. View looking east.

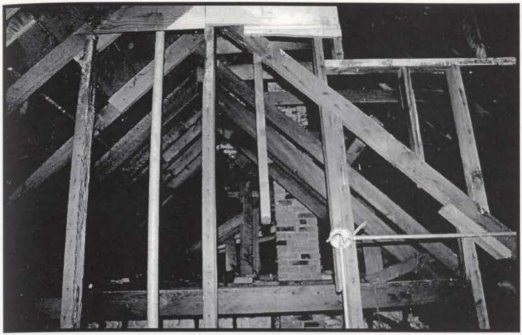


Figure 82: The structure of the historic gable roof is apparent on the west side of the Temple attic. View looking east.

Today, the framing system of the attic roof is not as clear cut as it once was. Fortunately, the original framing system was left in place as the numerous modifications were made to the structure, which allows the viewer to effectively read the changes which have occurred to the Temple over time. The addition to the south side of the Temple which enclosed the stairwell on that facade required a drastic modification of the historic roof pitch in order to prevent the gable roof from being lop-sided. The rafters which form the hipped roof on the western elevation attach directly to the modified rafters from the eastern addition, attaching right to the historic exterior siding which was left on this element. On the eastern end of the Temple, additional bays were installed to facilitate the addition to that elevation in 1948.

Owing to the number of modifications which have occurred to the attic, it is understandable that additional bracing members would be installed for added support. In the Temple attic, however, bracing seems to have been taken to the extreme, with bracing members being placed diagonally, horizontally, and vertically. Many of these elements were constructed from recycled pieces of exterior siding.

One of the most significant modifications to occur to the Temple attic in modern times was the construction of the vaulted ceiling which is located in the Lodge Room on the second story. The framing system and insulation used in this modification is visible in the attic, to the

east of the modified historic chimney (see figure 83, below). The ceiling was framed in using 2" x 6" members, and it sits about 5' above the floor joists of the rest of the attic. The brick chimney which can be seen in historic photographs protruding from the south side of the western end of the gable roof is still intact, and can be seen both on the first floor of the Temple in the Furnace Room, as well as in the attic. Here, it is apparent that after the 1939 addition to the southern elevation, the historic chimney had to be expanded in order to remain usable. The bricks of the chimney addition are of a different color than the originals, as is the mortar used to bind them. This fact makes the modification easily readable.

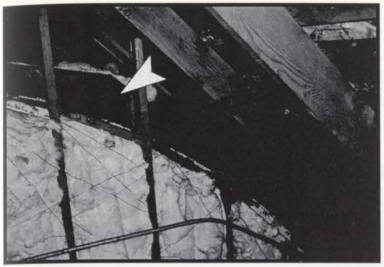


Figure 83: Photograph showing the framing for the Lodge Room's barrel vaulted ceiling.

The Temple attic is in remarkable condition, given the numerous modifications to the structure which have occurred over its long history. The roof was replaced in 2000, so the sub-sheathing and roofing materials are all new. The condition of the attic will be discussed more fully in the condition assessment section of this

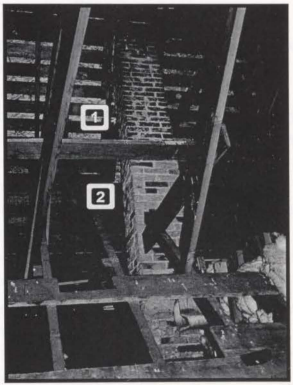


Figure 84: Photograph showing (1) the addition to the chimney and (2), the original brick structure. Notice how the chimney originally protruded from the south side of the gabled roof. View looking north.

Heating and Cooling Systems: Historically, the Temple was heated via a number of wood stoves. The meeting minutes indicate that in 1874, Brother Walter Crockett purchased two of these units for

use in heating the Temple.[5] In 1931, the heating system was upgraded to two 3000 watt electric heaters, but these were eventually discontinued, as they were repeated left on after meetings, and the heating bill was astronomical.[6] Currently, the Temple is heated using a large gas furnace, which is located on the first floor, next to a section of the historic chimney. Vents have been placed throughout the Temple, including in the floor and ceiling of the Lodge Room. The duct work is easily accomodated by the large spaces which are present between the first and second floors of the Temple, so the ventilation system is not readily visible on the interior of the Temple (see images, below).

Figure 85: Duct work in the crawlspace between the first and second floors of the Temple. View looking east.

Figure 86: Vent in the floor of the Lodge Room.

Fire Prevention Systems: No pervasive fire supression system has been installed in the Temple, other than fire extinguishers and a steel fire escape on the north side of the building. Meeting minutes indicate that the need to install a system was an issue which was broached many times, but never came to fruition. Given the age and size of the structure, plus the fact that it is almost entirely constructed of wood, it is almost certain that the few fire extinguishers would be insufficient to contain a large blaze should one break out. It is suggested that the installation of a fire supression system be considered immediately. There is ample space in the attic and between the floors, so a system could even be installed with minimal disruption to the interior of the Temple.

Furnishings: No historic finishes are readily visible on the interior of the Temple, and similarly, very few historic furnishings appear to exist. Those pieces of furniture which are historic include the chairs in the Lodge Room, which were taken from a local movie theater in the 1940's, as well as the chairs for the Master, Junior Warden, and Senior Warden, which are also in this room. The only decorative item which appears to

be original to the structure are the twin pillars which flank the Junior Warden's podium on the western side of the Lodge Room (figure 87, below). In the Archives Room, a matching chair, table, and couch which are made of leather and feature a western theme are present. The exact age of these items is indeterminant, but they are likely historic. The date when they were installed in the Temple, however, remains a mystery.

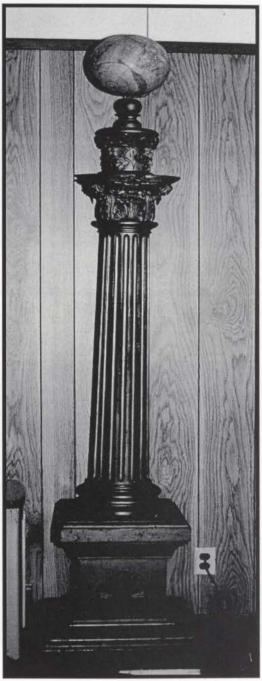


Figure 87: *One of two twin pillars which are original to the Temple, and are located on the Lodge Room's western wall.*

WHIDBY ISLAND LODGE #15 TEMPLE ELEVATIONS

Figure 88: *Northeastern elevation.*

Figure 89: *Southern elevation.*

Figure 90: *Eastern elevation.*

Figure 91: *Southwestern elevation with detached storage shed.*

Notes

[1] Coates, Frank C, "Some Notes on the History of Whidby Island Lodge #15, F. & A.M. Coupeville, Washington," (Coupeville, WA: Whidby Island Lodge #15, F. & A. M., 1964), p. 41.

[2]Whidby Island Lodge #15, F. & A.M. Coupeville, Washington. Lodge Meeting Minutes. 8 January 1887, Vol. 2 p. 37.

[3]Conversation with head of the Temple Association, Douglas Jerome. October 25, 2006.

[4]Whidby Island Lodge #15, F. & A.M, 13 February 1897, and 19 April 1902, Vol. 2 pp. 189, 226.

[5]Whidby Island Lodge #15, F. & A.M, 27 December 1874, Vol. 1 p. 168.

[6]Coates, p. 57.

Illustration Credits

Figure 1: Kristin Monahan, 2006.

Figure 2: Kristin Monahan, 2006.

Figure 3: Kristin Monahan, 2006.

Figure 4: Kristin Monahan, 2006.

Figure 5: Sketch by Kristin Monahan and Annie Kidd, 2006.

Figure 6: Kristin Monahan, 2006.

Figure 7: Kristin Monahan, 2006.

Figure 8: Kristin Monahan, 2006.

Figure 9: Kristin Monahan, 2006.

Figure 10: Character sketch by Kristin Monahan, October 2006.

Figure 11: Kristin Monahan, 2006.

Figure 12: Kristin Monahan, 2006.

Figure 13: Zachary Dunlap, 2006.

Figure 14: Kristin Monahan, 2006.

Figure 15: Kristin Monahan, 2006.

Figure 16: Kristin Monahan, 2006.

Figure 17: Kristin Monahan, 2006.

Figure 18: Kristin Monahan, 2006.

Figure 19: Sketch by Kristin Monahan, 2006.

Figure 20: Kristin Monahan, 2006.

Figure 21: Kristin Monahan, 2006.

Figure 22: Kristin Monahan, 2006.

Figure 23: Sketch by Kristin Monahan, 2006.

Figure 24: Kristin Monahan, 2006.

Figure 25: Kristin Monahan, 2006.

Figure 26: Kristin Monahan, 2006.

Figure 27: "Temple circa 1900," Courtesy of the Whidby Island Lodge #15, F. & A.M.

Figure 28: Kristin Monahan, 2006.

Figure 29: Sketch by Kristin Monahan, 2006.

Figure 30: Sketch by Kristin Monahan, 2006.

Figure 31: Kristin Monahan, 2006.

Figure 32: HABS photograph, 1936, Available through the Library of Congress Digital Collections, Internet on-line, available from <http://memory.loc.gov/cgi-bin/query/S?pp/hh:@field(TITLE+@od1(MasonicH Hall+Whidby+Island,+Coupeville,+Island+County+WA)), Accessed 13 September 2006.

Figure 33: Kristin Monahan, 2006.

Figure 34: "1880," Courtesy of the Whidby Island Lodge #15, F. & A.M.

Figure 35: Sketch by Kristin Monahan, 2006.

Figure 36: Sketch by Kristin Monahan, 2006.

Figure 37: Kristin Monahan, 2006.

Figure 38: "1880," Courtesy of the Whidby Island Lodge #15, F. & A.M.

Figure 39: Kristin Monahan, 2006.

Figure 40: Sketch by Kristin Monahan, 2006.

Figure 41: Sketch by Kristin Monahan, 2006.

Figure 42: Sketch by Kristin Monahan, 2006.

Figure 43: Sketch by Kristin Monahan, 2006.

Figure 44: Kristin Monahan, 2006.

Figure 45: Kristin Monahan, 2006.

Figure 46: Sketch by Kristin Monahan, 2006.

Figure 47: Sketch by Kristin Monahan, 2006.

Figure 48: Sketch by Kristin Monahan, 2006.

Figure 49: Kristin Monahan, 2006.

Figure 50: Kristin Monahan, 2006.

Figure 51: Kristin Monahan, 2006.

Figure 52: Kristin Monahan, 2006.

Figure 53: Kristin Monahan, 2006.

Figure 54: Sketch by Kristin Monahan, 2006.

Figure 55: Kristin Monahan, 2006.

Figure 56: Kristin Monahan, 2006.

Figure 57: Kristin Monahan, 2006.

Figure 58: Kristin Monahan, 2006.

Figure 59: Kristin Monahan, 2006.

Figure 60: Kristin Monahan, 2006.

Figure 61: Sketch by Kristin Monahan, 2006.

Figure 62: Kristin Monahan, 2006.

Figure 63: Sketch by Kristin Monahan, 2006.

Figure 64: Kristin Monahan, 2006.

Figure 65: Kristin Monahan, 2006.

Figure 66: Kristin Monahan, 2006.

Figure 67: Kristin Monahan, 2006.

Figure 68: Zachary Dunlap, 2006.

Figure 69: Sketch by Kristin Monahan, 2006.

Figure 70: Kristin Monahan, 2006.

Figure 71: Kristin Monahan, 2006.

Figure 72: Kristin Monahan, 2006.

Figure 73: Kristin Monahan, 2006.
Figure 74: Kristin Monahan, 2006.
Figure 75: Kristin Monahan, 2006.
Figure 76: Kristin Monahan, 2006.
Figure 77: Kristin Monahan, 2006.
Figure 78: Kristin Monahan, 2006.
Figure 79: Kristin Monahan, 2006.
Figure 80: Kristin Monahan, 2006.
Figure 81: Sketch by Kristin Monahan, 2006.
Figure 82: Kristin Monahan, 2006.
Figure 83: Kristin Monahan, 2006.
Figure 84: Kristin Monahan, 2006.
Figure 85: Kristin Monahan, 2006.
Figure 86: Kristin Monahan, 2006.
Figure 87: Kristin Monahan, 2006.
Figure 88: Kristin Monahan, 2006.
Figure 89: Kristin Monahan, 2006.
Figure 90: Kristin Monahan, 2006.
Figure 91: Kristin Monahan, 2006.

CHAPTER III
WHIDBY ISLAND LODGE #15, F. & A.M.
TEMPLE CONDITION ASSESSMENT

Structure:

The Temple of the Whidby Island Lodge #15 is currently in good structural condition, with only minor deflection showing on the eastern and western ends of the roof in the area of the additions to those elevations, and in the floor of the Lower Hall on the Temple's first story, which is uneven in spots. Both of these conditions seem to be relegated to those portions of the structure which are not original, e.g. in the areas of the additions, which hints to the improper installation of these elements.

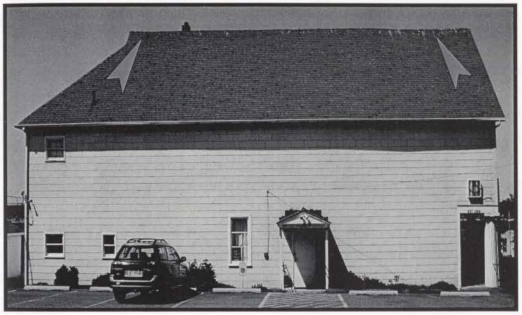


Figure 1: South elevation of the Temple showing roof deflection on the eastern and western ends.

Close inspection of the attic space of the Temple revealed no mold, rot, insect infestation, or water damage which might be contributing to the roof deflection, and the Temple's foundations appear to be structurally sound. Full access to the brick and concrete underpinnings was not able to be obtained through the wooden door on the northern elevation, so a complete structural analysis was not able to be performed in this area. The underside of the building did appear to be wet, though the building was assessed at the beginning of the area's rainy season, so this condition may have been solely due to the inclement weather, and not to failings inherent in the structure itself. The brick underpinnings which are still visible underneath the structure were installed by one of

the Lodge members as a retrofit to this element in 1894. As these underpinnings are now almost 112 years old, they may require additional strengthening in order to make them structurally sound. A qualified structural engineer should be consulted in order to ascertain the stability of the underpinnings, foundations, and roof, so that their structural strength can be officially determined. It must be noted, however, that any modifications to these elements, the foundations and underpinnings in particular, should be made with extreme sensitivity to the historic nature of these elements, and these changes should follow the *Secretary of the Interior's Standards for Rehabilitation* (see appendix for these standards). This is particularly true for all elements which can easily be seen from the exterior of the building, as the historic appearance should be undisrupted as much as is humanly possible.

Exterior Elements:

Walls: All of the walls on the exterior of the Temple have been clad in cement-asbestos shingles. In the inventory chapter of this document, these shingles were discussed, but their exact condition at the time of assessment was not. The shingles vary in their condition from elevation to elevation, and so each elevation will be discussed individually.

NORTH: Due to the large massing of the Temple, and its east/west orientation, the northern elevation is cast in nearly perpetual darkness. It receives very little direct sunlight, even in the late hours of the afternoon. As such, this elevation remains damp and retains water far longer than the other elevations, and as a result, mold and mildew flourish here. This condition is quite apparent on the cement-asbestos shingles of this elevation, which are covered in areas with mold and mildew, especially in the center, or historic section of the structure (see figure 2, below). The mold growth is worst along the lowest courses of shingles, and along the gutters, which are similarly affected. It seems as though no element on this elevation is safe from this colonization, though the cement-asbestos shingles seem to be most acutely

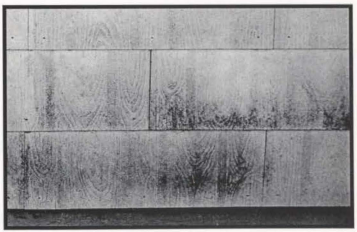


Figure 2: Mold and mildew growth on the shingles of the northern elevation.

affected.

The shingles present all over the Temple have become particularly friable with age, and the cement-coating on the exterior of these elements has begun to erode. This condition certainly is a heavy contributor to the colonization of the shingles by mold and mildew. By exposing the porous asbestos interior of these elements, mold spores and other fungi have more opportunity to take root and flourish.

While erosion of the cement coating has certainly contributed to the fungal growth observed on the shingles, it has also contributed heavily to the breakage which has become rampant in these units on every elevation of the Temple. The breakage of these elements is a cause for concern, as it exposes the asbestos fibers buried within. These fibers can be a real health hazard for all of those who come in contact with them, an issue of pressing and immediate concern which will be dealt with heavily in the rehabilitation recommendation chapter of this document.

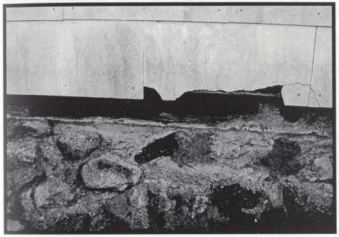


Figure 3: Breakage on the lowest course of shingles, north elevation.

WEST: The shingles on the western elevation of the Temple, while suffering less from mold and mildew infestation than their northern counterparts, are cracked and/or broken in much higher numbers. As on the north elevation, the breakage is mostly confined to the lowest courses, though the tile underneath the window on the north side of the first floor is also damaged. The lowest three courses of shingles are heavily discolored due to water backsplash from the concrete apron, and a discoloration due to corrosion of one of this elevation's light fixtures can be seen above the doorway.

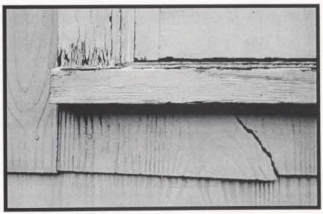


Figure 4: Breakage to shingle under window north side, west elevation.

Significant water damage has occurred on this

elevation in the areas of the north and south corners. Here, the metal gutters are bent and mold covered, and the fungal growth has expanded to the corner trim pieces which lie underneath. This condition is almost certainly from constant water infiltration, as even the concrete apron around the building is saturated with water at the southwest corner.

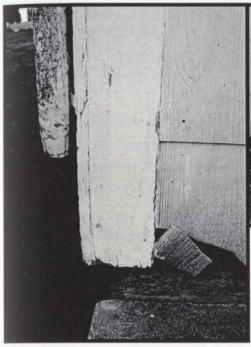


Figure 5: Broken tile, moldy gutter, and mildew growth on corner trim, western elevation.

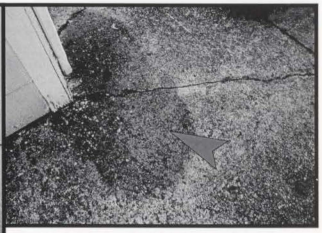


Figure 6: Water retention on the concrete elevation, southwestern corner.

SOUTH: Of all of the Temple's elevations, the southern wall has suffered the most damage to its cement-asbestos shingles. The shingles on this elevation are very friable, especially along the lowest courses, where even lightly touching these units can cause breakage. Here, large sections of the tiles have broken off, exposing the asbestos fibers within. The average hole caused by this breakage measures 6" in height, with some as high as 9". Most of these are between 6" and 10" long, and are usually confined to a single tile, but the longest measures 3' and spans multiple tiles. Cement-asbestos shingles were manufactured in a variety of different types, and the tiles which clad the Temple feature a faux wood grain pattern. This pattern has begun to fade, as the cementitious outer layer of the shingle wears away, instead exposing the fibrous texture of the tile's interior.

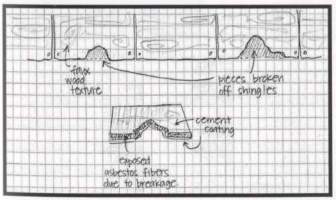
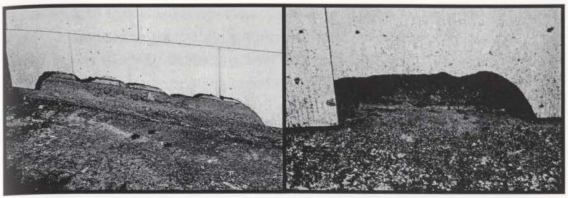


Figure 7: Sketch showing shingle degradation on southern elevation.



Figures 8 (Left) and 9 (Right): *Photographs showing the extent of the breakage which has occurred to the shingles on the southern elevation. Broken pieces in Figure 8 measure three feet in length.*

Besides being broken, a number of tiles across this elevation are also cracked or missing altogether. This condition holds especially true in the area over the gable roofed projection which covers the south door. Here, multiple tiles are either missing or broken, exposing the tarpaper underneath (see figures 10 and 11, below). The shingles in this area have also suffered significant discoloration, which is of unknown origin, but presents itself in a splatter pattern which resembles paint. This discoloration is a dark ochre yellow in color.

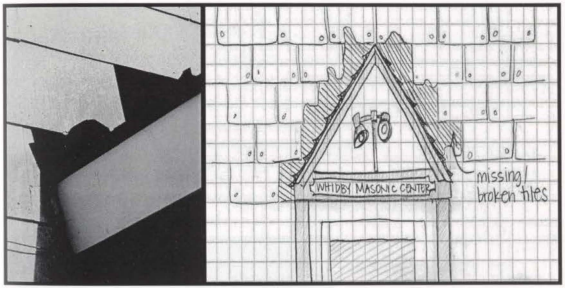


Figure 10: *Missing shingles and discoloration over the gable roofed projection, southern elevation.*

Figure 11: *Sketch showing the shingle condition over the gabled projection. Note how large the area of missing and broken tiles is.*

EAST: As on all of the other Temple elevations, the eastern facade is sheathed with cement-asbestos shingles. These tiles are in better condition than those on any of the other elevations; the exception being a fist-sized hole in one of the tiles on the north side of the doorway. On the surface, the tiles on this elevation are very dirty, a condition which is

likely due to this elevation's close proximity to the car traffic and subsequent exhaust on Coupeville's Main Street. This is especially true on the eastern elevation's first floor, where some tiles have turned a dark grey color from the exposure. The cementitious coating on the shingles' exterior is especially thin on this elevation.

Figure 12: Prolonged exposure to car exhaust from Main Street has heavily soiled the shingles on the eastern elevation.

Windows: The Temple windows are all in fairly good condition, and feature only minor cosmetic defects. These include cracked or peeling paint, missing glazing, and minor moss colonization. All of the condition concerns currently affecting the Temple windows can be quickly remedied with little effort and a small expense.

NORTH: Of the four windows currently present on the northern elevation, all are in good condition, with minor cosmetic defects. These include cracked glazing, paint on the glass lights of the windows (interior), and minor mold growth on the window's drip sills (figure 13). These elements should be cleaned, re-glazed as necessary, and repainted to prevent damage from occurring to the historic window fabric. Treatment of the wood after repainting with an anti-fungal agent is advisable on this elevation, given its capability to retain water and

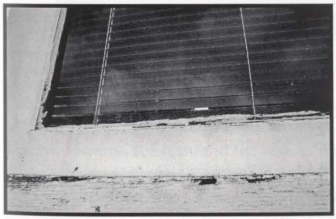


Figure 13: Mold growth on window sill and paint on glass lights, northern elevation.

cause large outbreaks of fungal growth. The window trim pieces should be similarly treated.

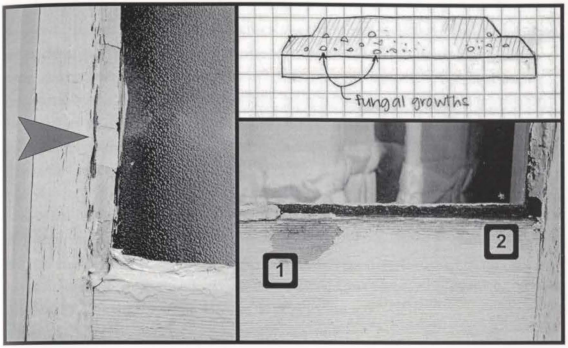
WEST: Windows on the western elevation are in fair to good condition, with the glazing on the first floor window being cracked and flaking, especially on the lower light's northern edge. Elsewhere, paint has begun to flake off on the window sills, which has allowed water penetration and mold growth to occur (see figure 14, below). In the windows of the upper story, the glazing is in tact, though it has begun to yellow with age. It seems as though at some point water infiltration was an issue on this elevation, as the nails used on the windows and door sills have left corrosion stains on the paint which covers them.

While all of these conditions sound very bad, they have not yet degenerated to the point as to cause irreparable harm to the historic fabric of the windows. Simple maintenance in the form of re-glazing and repainting, as well as continual upkeep of these elements will not only prevent them from degrading any further, but it will preserve them for the future. These undertakings, while requiring an initial small expenditure, will prove to be tremendously cost effective in the future.

Figure 14: Mold growth and paint loss on the window sill of the first floor window, western elevation.

SOUTH: Cosmetically, the windows on the southern Temple elevation are in the same condition as those on the western elevation. Some of the window glazing has cracked with age, and the large three light window towards the center of the wall is even missing large portions of the glazing on its lower light (see figures 15, 16, and 17, next page). Some small yellow fungal growths were observed growing in clumps on the windows sills of this elevation. The wooden elements of the windows,

including the trim pieces, have cracked and/or peeling paint, and the glass lights also have paint on them, though this is mostly the case on the interior surface of the glass.



Figures 15 (Left), 16 (Top Right), and 17 (Bottom Right): *Heavily cracked glazing on the western window, first floor; sketch showing the fungal growths on the window sill of the same window; and photograph showing (1) flaking paint which has exposed the wood structure of the window frame and (2) missing glazing in the large three light window on the first floor of the southern elevation.*

EAST: As the eastern elevation of the Temple could readily be considered the "front" of the building, minor surface defects in any of its elements will seem more pronounced, as this is the facade that most people think of when they consider the building. Due to this fact, it is especially important here that good maintenance practices be established in order to present the Temple to the public and its members in the best light possible. The Temple is a very real, tangible symbol of the tenets of Freemasonry and the strength of the community within and at large, so every effort should be made to present these ideas through the structure itself.

The windows of the eastern elevation are in better condition than any others on the Temple, visually. Here, the windows have suffered only minimal damage in the form of peeling and chipped paint on the window frames. However, the wooden elements of the eastern windows are extremely dirty, as are all other elements on the first floor of this elevation. The windows, frames, trim pieces, and walls should be cleaned, and the wooden elements repainted white. Doing these simple tasks will brighten this entire facade and enliven the structure as a whole.

The windows on the second floor of the eastern facade of the Temple present a unique situation to the preservationist, as they are no longer functional as windows. The wall behind the windows has been in filled, and the historic glass lights have been removed from their frames. As such, it is not possible to restore the windows without disrupting the interior of the Temple, and the privacy needed in the Lodge Room, as well. Since the paint on the window frames and muntins has begun to peel and crack on these windows as well, and the plywood pieces which were inserted in place of the historic lights shows signs of similar degradation, the most amicable result to the situation would likely be to repaint the wooden portions of the window frame white, and then to paint the plywood pieces a color which matches that of the cement-asbestos shingles. In this way, the second story windows will not stick out so much as being modified, and they will more harmoniously blend with the rest of the facade. It should be noted, however, that if at any point the historic siding is restored, then the color of that element should be taken into consideration in regards to these windows.

Roof: Despite deflection on its eastern and western ends, the Temple roof is in good condition, having been completely replaced in 2000. On the northern elevation, where conditions are perpetually damp and dark, some minor moss growth was observed in the central portion of the roof, though this can likely be abated immediately by sweeping the roof shingles to remove any duff or other debris which may be abrading the surface and allowing the moss to grow. Gutters should likewise be cleared, as debris can be observed in the gutters of the northern elevation from the ground.

Downspouts should be checked to ensure that they are working properly and are not clogged. Mold growth on the exterior of these elements was observed, particularly on the northern and western elevations, and it remains undetermined whether this condition is solely superficial or whether a failing at the gutter seams is allowing water to run down the exterior rather than through the interior of these elements.

Routine cleaning and maintenance of these elements will prevent any major damage from occurring, as well as reduce costs associated with the repair of either of these elements in the future.

Eaves: The Temple eaves, especially on the northern and western elevations, have begun to show signs of rot and mold growth due to water infiltration. This condition has likely been caused by failings in the gutters and downspouts, as the degradation is mostly confined to areas which are immediately adjacent to these elements (see figures 18 and 19, below). Another cosmetic defect which has presented itself in the eaves

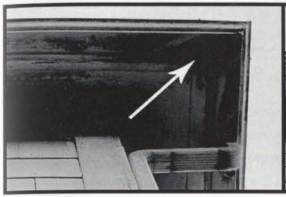


Figure 18: Mold growth, corrosion, and rot on the gutter and eaves, southwest corner, western elevation.

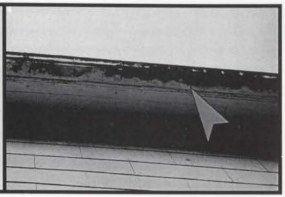


Figure 19: Mold growth and degradation to gutter and eaves on northern elevation.

Figure 20: Missing facia piece west side northern elevation.

can be seen on the northern elevation, where a large piece of the facia board has been removed (figure 20, left). This condition does not appear to be due to water damage or rot, as the entire board is missing, and no jagged edges which would indicate breakage or rot are apparent.

Treatment recommendations for the Temple's eaves include the cleaning and repair of all gutters and downspouts to ensure they are working properly, as well as the replacement of the missing facia board on the northern elevation with in-kind materials in keeping with the *Secretary of the Interior's Standards for Rehabilitation*. The replacement of this member is imperative, in order to prevent water from logging the exposed wood underneath and leading to damage either to the roof or walls.

Doors: All of the four doors which are present on the Temple exterior are in good condition, with all damage (minor in nature) being present on either the door trim or the sills. The doors themselves are in excellent condition, and are all working properly. The northern and east-

ern doors show very few defects other than being dirty, and as such, it is just recommended that the doors and trims be cleaned, and repainted as necessary.

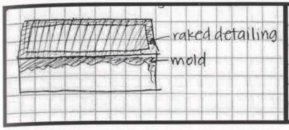


Figure 21: Sketch showing area of mold growth on concrete step, western elevation.

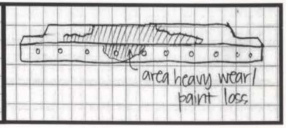


Figure 22: Sketch showing area of heavy wear and paint loss to wooden door sill, western elevation.

The door on the western elevation of the Temple does show some minor visual defects including heavy wear to both the wooden door sill and concrete step, as well as pronounced nail holes, some paint loss, and minor fungal growth (figures 21 and 22, above, and 23, below). Some corrosion was also observed on the metal door hinges on the southern side of the door. All of this damage is relatively superficial, and any further corrosion or degradation could be arrested with the application of a new layer of paint on all of these surfaces.

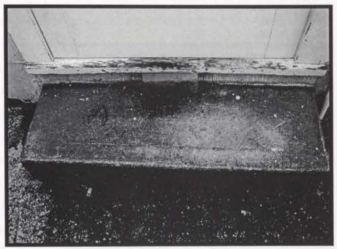


Figure 23: Wear to paint on tread and fungal growth, concrete step, western elevation.

The door on the southern elevation does not show signs of rot, mold, or mildew growth. Its only defect is that pieces of trim on the top and eastern sides of the door have been removed, exposing the historic wood lap siding and framing pieces underneath. While the removal of this element was beneficial in helping to ascertain whether or not historic siding still existed on the exterior of the Temple, prolonged exposure of these elements to the weather could result in a degradation to the historic fabric. As such, it is recommended that the missing trim pieces be replaced until such time as the historic wall sheathing of the Temple can be restored.

Foundations: As the Temple foundations are all historic, great care should be taken when working with these elements in order to ensure that the historic fabric is being treated sensitively. For example, the eastern and southern foundations should never be replaced with poured concrete, as these elements were originally board-formed, and their presence speaks to the gradual evolution of the structure. Likewise, if it was ever determined that the stone foundation on the northern elevation be repaired or replaced, the work should be done *in kind*, leaving as much of the historic fabric in tact as possible.

Fortunately, the Temple foundations remained in good condition at the time of this assessment, and showed very little damage. The eastern portion of the board-formed concrete foundations on the northern elevation do feature a sizeable crack, which begins approximately 13' from the eastern edge of the foundations, and is 1/4" thick at its widest point (figure 24, below). It is doubtful that this crack has caused any structural instability in the foundations, but it should be monitored frequently to track any changes in its size. The board-formed concrete foundations on the eastern elevations show similar cracks, though these are much smaller than the one found on the northern elevation (see figures 25 and 26, next page).

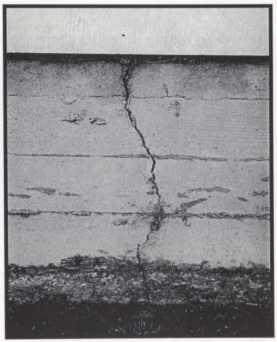


Figure 24: Crack in the board-formed concrete foundations on the eastern end of the northern elevation.

Very little of the foundations can be seen on the southern and western elevations, as only a few inches of this element has been left exposed, owing to the grade of the lot. What can be seen of the foundations at these facades however, appears to be in very good condition, with no major or minor defects apparent.

The original Temple foundations, which were constructed of large field stones, also remains in good condition. This portion of the foundation can be seen on the northern elevation of the Temple, in the center section of the building. While the condition is good, it does appear that some re-pointing of the historic mortar occurred in the area surround-

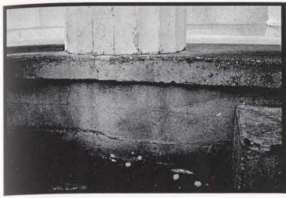
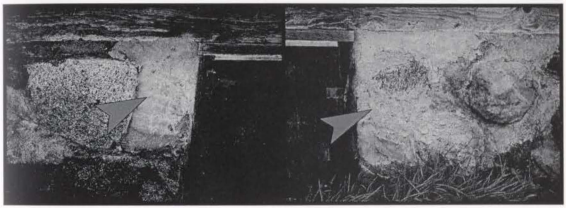


Figure 25: Minor cracks are apparent in the board-formed concrete foundation on the southern side of the eastern elevation.

Figure 26: Board-formed concrete foundation, northern side, eastern elevation.

ing the wooden access door on this elevation (figures 27 and 28, below). This re-pointed mortar differs drastically in color from the original material, and in some places it spills over to cover the field stones themselves. While this condition is cosmetic, and is not affecting the integrity of the foundations, it should be noted that any re-pointing efforts in the future should strive to be as clean as possible, and should not seek to repeat the mistakes made in this re-pointing effort.

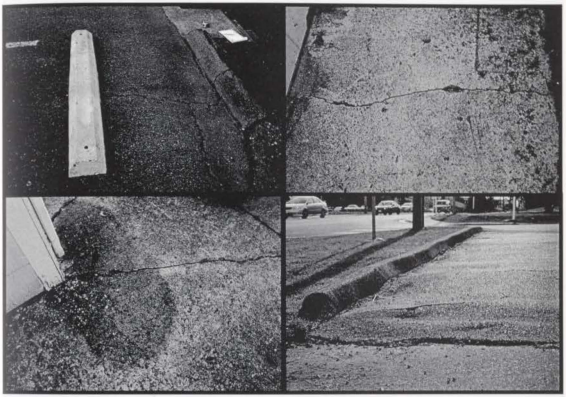


Figures 27 (Left) and 28 (Right): *Re-pointing of the historic mortar on the stone foundation, northern elevation, does not match the historic fabric either in color or application. The mortar covers large sections of the historic stones.*

Vents: Two of the four elevations of the Temple feature metal vents. These elements are present on the northern and southern elevations, where they are more or less evenly spaced across the entire length of the facade. On both of these elevations, all of the vents show some signs of corrosion, and many are bent or otherwise damaged. It is advised that these elements be replaced in order to prevent the corrosion from staining the shingles or other surrounding elements.

Concrete Work: Cracking is rampant in both the Temple's concrete apron and its parking lot. Concrete curbing in the parking lot is

similarly affected. The area of the parking lot is particularly impacted, as here the ground plane has buckled as well as cracked. Seismic activity in this area seems to be average for the region, and other elements of the structure do not seem to be damaged by earthquake or tremor, so it is assumed that the damage which has occurred to these concrete elements is the result of freeze/thaw patterns rather than seismic activity. This condition is not one of major concern, though areas in the parking lot which are buckled and may prevent ADA access to the Temple entrance may need to be replaced.

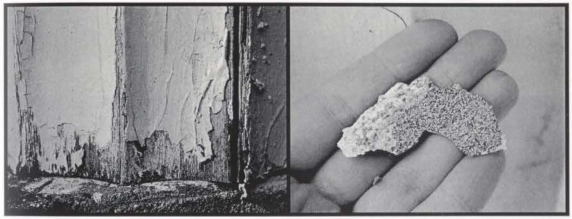


Figures 29 (Top Left), 30 (Top Right), 31 (Bottom Right), and 32 (Bottom Left): Photographs showing cracking and buckling due to freeze/thaw cycles in the Temple's concrete apron and parking lots

Columns: The four character defining fluted Doric columns which have been installed as support for the second story projection on the Temple's eastern end are only in fair condition, though they remain structurally sound. The large columns are constructed of wood, a fact that is easily ascertained owing to the level of damage which has occurred to the columns' surface treatments. The paint on the two center columns is crazing significantly, and all four elements have suffered at least some paint loss. Again, the two central columns have suffered the most paint loss, a condition which on these elements can be classified as moderate to severe (see images, next page). Here, the paint is bubbling

badly, and has flaked off in large sheets. The back side of the paint pieces which have spalled off reveal a textured surface which resembles concrete. It is assumed that the columns were originally coated with paint mixed with sand to make it appear as though they were made of stone.

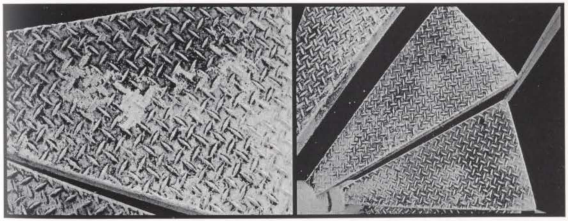
Figures (Clockwise from top left) 33, 34, 35, 36, and 37: Photographs showing extensive damage to the surface treatment of the eastern elevation's four Doric columns.



The columns need to be treated immediately in order to prevent any damage from occurring to their historic wood sub-structure and to prevent the loss of any historic fabric. The columns were built circa 1910, and their replacement would not be either easy or inexpensive. Fortunately, re-finishing the columns is a simple and relatively inexpensive way protect them from further damage. For guidance on re-finishing these and other wood elements on the Temple, refer to *Preservation Brief 10: Exterior Paint Problems on Historic Woodwork*, which is published by the National Parks Service, and has been included in the appendix of this document.

Fire Escape: While the steel spiraling fire escape on the Temple's northern elevation is neither original to the structure nor historic, it does have some condition concerns which diminish its effectiveness as a survival tool in case of a fire. The biggest concern affecting the fire escape is the fact that mold growth is rampant on this element; in some cases covering entire treads. The mold growth has made the surface of the fire escape extremely slick, a condition which makes it more of a hazard than a help if it were needed for emergency evacuation. The other situation affecting the fire escape is the fact that the metal has begun to exhibit signs of corrosion. It is suggested that, at the very least, the fire escape be thoroughly cleaned, repainted, and treated with an anti-fungal agent.

Routine maintenance and frequent inspections of this element should be mandatory, as the Temple contains no real fire suppression system other than fire extinguishers, and in the event of a fire, the fire escape would have to be utilized. As it stands now, the fire escape is too slippery to walk on comfortably, let alone run down during an emergency situation. The configuration of the fire escape also makes it impractical for a quick escape, as a spiral stair is not conducive to a quick descent. It is advised that an alternative fire escape be considered for installation on the Temple's northern elevation; one which is accessible, easy to use, and not susceptible to the mold growth which is rampant on this elevation.



Figures 38 (Right) and 39 (Left): *Photographs showing the rampant mold growth on the treads of the steel fire escape. This condition has left the stairs very slick and unsafe to use.*

Interior Finishes:

As no historic wall, ceiling, or floor finishes are readily visible on the interior of the Temple, it is very hard to make an informed assessment of the interior elements based on their historical integrity. Historic

photographs showing the interior of the Temple were unable to be obtained, and the meeting minutes give few clues as to how the interior rooms were configured, finished, or furnished. As such, this assessment can only comment on the interior elements based on their modern finishes and configurations.

Walls: The Temple's interior walls are all in good condition, excepting the western wall in the first floor Women's Restroom, which has suffered water damage and discoloration of its wallpaper (figure 40, below).

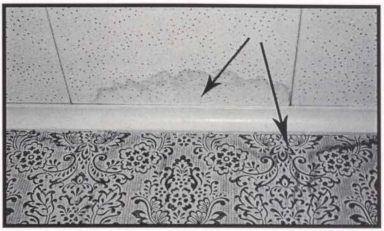


Figure 40: Discoloration on the wallpaper of the first floor Women's Restroom has occurred due to water infiltration through its western wall.

A thorough inspection of the plumbing elements should be made by a qualified professional in order to determine whether the damage is due to an ongoing problem, or a one time leak. That person may then make recommendations as to an appropriate remedy.

Walls elsewhere in the interior of the Temple are in good to excellent condition, owing to the fact that their surface treatments are relatively new. Routine inspections should be made of all elements of the Temple, including the interior, and surface finishes cleaned, touched up, or re-applied as needed.

Ceilings: Ceilings throughout the Temple, like the walls, are hard to evaluate based on their historic finishes, as in most cases, these finishes remain unknown. The historic ceiling of the Lower Hall is still in tact above the current batten ceiling, and this could easily be restored. As the ceiling in the Lower Hall has begun to show signs of deflection, it is recommended that the removal of the current ceiling and subsequent restoration of the historic ceiling be considered. This is one small way in which the history of the Temple can be addressed on the interior with minimal cost, and no loss of the usability of the space.

Visually, the Temple ceilings are all in good condition, and should simply be monitored for any changes.

Floors: The Temple floors are in good condition. The carpeting in the Lower Hall is heavily soiled, though a deep cleaning might rectify this situation. The only issue of some concern relative to the Temple floors is the deflection which has been observed in the area of the Lower Hall. A structural engineer needs to be consulted in order to ascertain whether this condition is the result of any structural failing of either the foundations or floor joists, as well as to make recommendations for its treatment.

Attic: The Temple attic is in remarkable condition considering its age and the number of modifications which it has undergone in its long life. The rafters and floor joists are sound, and there is no evidence of rot, mold, insect or vermin infestation, or water damage. No detritus is present, and the entire space is very clean. In all, the attic could be classified as being in excellent condition cosmetically.

While the attic is in good cosmetic condition, the methods employed in constructing the spaces are incongruous, haphazard, and shoddily installed. There is almost no continuity in the framing systems from one element to the next, and the additions appear as though they were hastily scabbed onto the historic elements using whatever materials appeared to be handy. No formulaic system has been utilized in the additions for determining the appropriate size for the various structural members, as the nominal dimensions of most of the roofing members vary from board to board. Given the random nature of their installation, it is imperative that the framing systems of the attic, and of the Temple as a whole be very carefully examined by a qualified professional in order to ascertain whether these elements were properly installed, and that the connections between the various members are correctly configured.

Illustration Credits

Figure 1: Kristin Monahan, 2006.
Figure 2: Kristin Monahan, 2006.
Figure 3: Kristin Monahan, 2006.
Figure 4: Kristin Monahan, 2006.
Figure 5: Kristin Monahan, 2006.
Figure 6: Kristin Monahan, 2006.
Figure 7: Kristin Monahan, 2006.
Figure 8: Kristin Monahan, 2006.
Figure 9: Kristin Monahan, 2006.
Figure 10: Kristin Monahan, 2006.
Figure 11: Sketch by Kristin Monahan, 2006.
Figure 12: Kristin Monahan, 2006.
Figure 13: Kristin Monahan, 2006.
Figure 14: Kristin Monahan, 2006.
Figure 15: Kristin Monahan, 2006.
Figure 16: Sketch by Kristin Monahan, 2006.
Figure 17: Kristin Monahan, 2006.
Figure 18: Kristin Monahan, 2006.
Figure 19: Kristin Monahan, 2006.
Figure 20: Kristin Monahan, 2006.
Figure 21: Sketch by Kristin Monahan, 2006.
Figure 22: Sketch by Kristin Monahan, 2006.
Figure 23: Kristin Monahan, 2006.
Figure 24: Kristin Monahan, 2006.
Figure 25: Kristin Monahan, 2006.
Figure 26: Kristin Monahan, 2006.
Figure 27: Kristin Monahan, 2006.
Figure 28: Kristin Monahan, 2006.
Figure 29: Kristin Monahan, 2006.
Figure 30: Kristin Monahan, 2006.
Figure 31: Kristin Monahan, 2006.
Figure 32: Kristin Monahan, 2006.
Figure 33: Kristin Monahan, 2006.
Figure 34: Kristin Monahan, 2006.
Figure 35: Kristin Monahan, 2006.
Figure 36: Kristin Monahan, 2006.

Figure 37: Kristin Monahan, 2006.

Figure 38: Kristin Monahan, 2006.

Figure 39: Kristin Monahan, 2006.

Figure 40: Kristin Monahan, 2006.

CHAPTER IV
WHIDBY ISLAND LODGE #15, F. & A.M.
TEMPLE REHABILITATION DIRECTIVES

All replacements should follow the Secretary of the Interior's Standards for Rehabilitation

STABILIZATION

Structure:

Structural analysis by a trained professional will be necessary to determine the exact cause of the deflection which was observed both on the eastern and western ends of the Temple roof, as well as in the floor of its Lower Hall. It is recommended that a structural engineer inspect the foundations, underpinnings, floor joists, rafters, and attic to determine the exact cause of this condition. The Lodge should refer to this person's report before deciding on a course of action or performing any repairs to the roof or foundations. All work performed on the Temple should be done following the Secretary of the Interior's Standards for Rehabilitation and with the goal of protecting the integrity of the Temple's historic fabric.

The Temple foundations should be similarly analyzed by a structural engineer to determine whether the cracks in the northern and eastern board-formed concrete portions are due to structural fatigue, or age, as well as to make recommendations for their rehabilitation or repair.

Exterior Elements:

Walls: The cement-asbestos shingles which clad the Temple walls are an element of pressing concern. Their friability and degradation exposes all those who come into contact with the Temple to asbestos fibers, a condition which could pose a very real health risk if the issue of this degradation is not addressed immediately. At the very least, the tiles should be sealed on their broken edges to prevent the release of asbestos fibers into the atmosphere. This task should be performed by a trained professional who has been certified to handle asbestos materials. A number of different levels of treatment could be undertaken relative to this element, and these will be delineated in detail a bit later in this document.

Windows: Glazing putty which is cracked and/or missing should be repaired or replaced as necessary in order to ensure that the historic lights are neither damaged or lost. All wooden surfaces on the windows,

including the frames, sashes, muntins, and trim pieces should be re-painted in order to prevent damage to the historic wood fabric underneath. Coating these elements, especially those which are found on the northern elevation, with an anti-fungal agent will help to prevent re-colonization by mold, mildew, or other fungi.

Doors: The Temple doors are in good condition, and so require only minimal maintenance and continued upkeep. All wooden trim pieces should be re-painted and treated with an anti-fungal agent, as necessary. The missing trim pieces on the southern elevation door should be replaced until such time as a suitable treatment for the Temple's historic wood siding is determined. The goal should be to protect this element in order to prevent loss of the historic fabric.

Roof: The Temple roof is also in good condition, having been recently replaced. The roof should be cleaned and regularly monitored. The gutters and downspouts, which are mold covered, should be inspected for failure, and these elements should be replaced if necessary.

Eaves: Eaves should be cleaned and inspected for damage and rot resultant from water infiltration. The area of the southwestern corner of the Temple seems appears to be especially affected. Those members which are rotten should be replaced in kind with materials which are sensitive to the historic integrity of the building. The missing piece of facia board on the northern elevation should be similarly replaced in kind.

Foundations: The Temple foundations are in good condition, and do not require any immediate stabilization measures. They do, however, need to be inspected by a qualified structural engineer to determine the cause of the cracks which are present on the northern and eastern elevations.

Vents: All of the metal vents on the Temple exhibit moderate to severe corrosion. These elements should be replaced in order to prevent the corrosion from staining the surrounding walls.

Columns: The Temple columns show significant degradation in the form of cracked, bubbling, and missing paint, which has exposed large portions of the historic wood sub-structure. These elements need to be refinished immediately. The National Parks Service's *Preservation Bulletin #10* should be consulted before beginning any refinishing work on these

or any other wooden element on the Temple.

Fire Escape: The steel fire escape on the Temple's northern elevation is very dangerous to walk on, owing to the rampant mold which covers nearly every surface of the treads, making them extremely slippery. At the very least, the treads and rails should be cleaned, and refinished, as well as treated with an anti-fungal agent. Given the advanced degree of this mold growth, and the spiraling shape of the stair, which is not conducive to a quick escape, it is recommended that an alternative fire escape be considered for installation. As there is no real fire suppression system in place in the Temple, it is imperative that the fire escape be both easily accessible and safe.

Interior Finishes:

The interior finishes in the Temple remain in good condition, excepting the western wall in the Women's Restroom on the first floor. This wall should be examined by a plumber in order to ascertain the cause of the water damage which is evident both on the ceiling and the wallpaper.

As the historic ceiling of the Lower Hall is still in tact, this element should be restored so that, in some small measure, the history of the structure may be acknowledged in a tangible way on its interior. It is very important that no color other than blue be used in refinishing the Temple's interiors. Blue is a very important color in Freemasonry, as it symbolizes the heavens, and it is considered improper for a Master Mason's Temple to be finished in colors other than blue or white.

OPERATIONS RESPONSIBILITIES:

Major Concerns:

A stringent, year-round routine maintenance plan for the care and perpetual upkeep of the Whidby Island Lodge's Temple must be implemented and strictly followed. Vegetation must be kept from growing up right next to the building, as it increases the chances of water being trapped in the historic fabric, and subsequent damage to these elements. The large bushes on the eastern elevation should either be removed or relocated to prevent their proximity from affecting the board-formed concrete foundations on this elevation. The roof should be checked numerous times annually, and swept free of debris. The gutters and downspouts should likewise be kept clear of duff and other debris. An annual inspection of the windows, doors, chimneys, foundations, and all other

elements of the Temple should be performed and any maintenance issues which arise from these inspections should be dealt with in a timely manner.

Site Features:

Vegetation should be kept trimmed back from the building's perimeter. The members of the Lodge have done a good job in maintaining the landscape of the Temple plot, and this maintenance regiment should be continued.

Foundations:

Well drained foundations should be provided for at all times, and foundations and underpinnings should be continually monitored for signs of damage, water infiltration or retention, and signs of fatigue or structural instability. If any problems are found, then a structural engineer should be consulted before deciding on a course of action.

Roof:

It is imperative that the Temple roof be kept clear of all debris, and that the gutters and downspouts receive similar treatment. These elements should be monitored frequently, and any necessary changes or repairs should be completed in a reasonable and timely manner.

Elevations:

All building surfaces, including walls, windows, doors, decorative elements, and trims should be kept as clean as is reasonably possible. The elevations should be monitored for infestation by insects, vermin, or other animals, and all necessary precautions should be taken to prevent infestation and allay damage to the building which can be caused by these pests. All windows and doors should be monitored to ensure continued operability.

Interiors:

A concerted effort needs to be made on the interior to acknowledge the history of the building, even in small ways. The restoration of the Lower Hall ceiling would greatly aid in telling the story of the structure. Interior elements should continue to be kept clean, dry, and in good repair. The attic and crawlspaces should likewise be monitored for infestation, water damage, or rot, and any necessary repairs made in a timely manner.

REHABILITATION DIRECTIVES

The Whidby Island Lodge's Temple is a truly amazing structure, rich in history, and important to the greater community in which it is located. Unfortunately, the many additions and modifications which have occurred to the Temple over its long history, while making the structure usable for modern purposes, have also greatly diminished the historic integrity and association of the building. This loss of historic feeling and association is the greatest preservation-related issue which faces the structure. As such, rehabilitation directives which are driven by the very real need to preserve the history of the Temple will be delineated with the goal of restoring to the structure some of its historic integrity, while keeping it usable for the current membership of the Lodge. This is no easy task to undertake, given the severity of the modifications which have occurred. It is imperative that all restoration work be undertaken only after thoroughly consulting this document, and that each task be completed in following with the *Secretary of the Interior's Standards for Rehabilitation*, which have been included in the appendix of this document.

While the Temple is in overall good condition, a number of cosmetic and structural issues need to be immediately addressed in order to avoid costly repairs or the loss of historic fabric (see chart delineating cost effectiveness of preventative maintenance from How Buildings Learn: What Happens After They're Built by Stewart Brand, Appendix). The elements which are of pressing concern relative to the condition of the structure include; (1) the steel spiral fire escape, (2) cement-asbestos shingles, (3) roof deflection, and (4) columns.

Restoration:

Restoration is the act of "accurately recovering the form and details of a property as it was in a particular period of time by means of the retention, protection, and repair of its architectural fabric, and by the removal of latter work or the replacement of missing earlier work."[1] In order to really appreciate the rehabilitation dorectives which are about to be delineated in this document, it is important that the Lodge members aquaint themselves with some of the philosophies and practices which guide historic preservationists on the pursuit of their life's work. As the Mason's are going to be the ones making decisions about the future of the structure, hiring contractors, and possibly undertaking some of the

work themselves, it is imperative that they have a full understanding of the reasons WHY the preservation of their incredible structure is so important. Consultation of the Secretary of the Interior's Guidelines and Standards for Rehabilitation should be considered mandatory before any work is undertaken, as these documents are industry standards. The National Parks Service, State Historic Preservation Office, and the National Trust for Historic Preservation are also organizations whose goal it is increase awareness of and interest in historic preservation, and the full breadth of these organizations' resources should be utilized.

Conservation and restoration efforts on the Temple will be expensive, and they will require a concerted long-term effort on the part of the Masons. Projects should be undertaken as the funds become available, but always with the goal of doing things the proper way, as always considering the historic nature of the structure.

Any future changes or modifications to the structure should be well documented through photographs and written records, and discussions of future modificaions should continue to be recorded in the meeting minutes of the Lodge. In this way, future preservationists will be made aware of the dates of all modifications, and the record which has here been established for the structure will remain complete. During the undertaking of some of these projects, a certain amount of historic fabric is bound to be revealed (especially in the removal of the asbestos shingles). Someone familiar with historic preservation practice should be on-hand during projects like these in order to advise on the appropriate treatment, as well as to record whatever historic fabric is revealed.

The recommendations are listed according to their importance, not their costs. It is understood that all of these recommendations cannot be undertaken simultaneously. It is hoped that the Lodge will follow the outline of the recommendations as they are presented here, making the necessary changes as the funding becomes available.

Loss of Historic Integrity:

The loss of historic integrity within the Temple is the issue of most pressing concern relative to the preservation of the structure. The modifications and additions which have occurred to the building have resulted in a composition which is a far cry from the original appearance of the structure. While the inevitable changes over time which occur in the life of a building are understood, and even appreciated, they are no ex-

cuse for ignoring the history integral to a building's context. There are a number of ways in which some of the historic integrity can be restored to the Temple, and these include: (1) the removal of the cement-asbestos shingles and the restoration of the underlying wood lap siding, (2) the removal of the spiral fire escape on the northern elevation, and (3), the restoration of the ceiling of the Lower Hall (interior, first floor).

Cement-Asbestos Shingles:

The condition of the cement-asbestos shingles which cover the entire exterior of the Temple has already been discussed in detail in this document. These elements have become very friable, and as a result, the risk of exposure to asbestos fibers by those who routinely use the Temple is very real. As such, a number of levels of treatment have been devised in order to allay this exposure, while at the same time addressing the historic nature of the Temple. They are delineated here in order of preference, not in order of cost effectiveness.

Option 1, Removal:

While the removal of the shingles os the most expensive treatment available to address the concerns presented by the friability of the cement-asbestos shingles, it is the most preferable option from a historic preservation standpoint. The Temple has undergone so many alterations, modifications, and additions in its 132 year history so as to render is virtually unrecognizable from its historic appearance. As the complete restoration of the Temple to its as-built appearance would rob the Lodge of nearly three-quarters of their meeting space, and effectively prevent them from viably utilizing the structure, a complete restoration to its as-built appearance is not recommended. Instead, the restoration of the historic siding material would go a long way towards restoring the historic feeling and association of the structure, as well as removing the health risks associated with the current wall sheathing.

Missing trim pieces around the southern door of the Temple reveal that the historic wood lap siding remains in tact under the current siding. It is suggested that the asbestos shingles be removed, and this siding be restored. This project should be undertaken in phases and in consultation with trained professionals. Under no circumstance should members of the Lodge undertake the removal of these elements by themselves. Preliminary instrusive investigation of the shingles needs to be undertaken in order to ascertain the precise condition of the underlying

historic siding. Shingles should be removed from various places across the various Temple elevations, and a preservation professional should be on hand to interpret the condition of the historic siding, as well as to make more informed recommendations regarding its restoration.

Pieces of the siding which have been recycled as bracing members in the attic can be reclaimed and reinstalled, and additional siding can easily be re-milled to cover the additions on the eastern and western sides of the Temple. While this will be an expensive undertaking, it is one of the few ways in which the historic feeling of the Temple exterior can be restored, given all of the modifications which have occurred to this element. The restoration will also help to incorporate the columns on the eastern elevation into the building, giving them a historic context and preventing them from looking incongruous.

As the Temple is already incorporated in the multiple property National Register Designation in place for Ebey's Landing National Historical Reserve, it is eligible for individual Listing on the National Register of Historic Places as well. If the individual listing is pursued, then all money spent on the rehabilitation of the Temple would qualify for a 20% rehabilitation tax credit, effectively reducing the overall cost of the expenditure to the Lodge and its members.

It must be noted that any work involving asbestos must be performed by a certified professional who has experience in the removal and disposal of asbestos products. This is mandated by law, as well as being dictated by health and safety concerns.

Option 2, Repair:

At a minimum, the asbestos shingles which clad the exterior of the Temple need to be immediately repaired. The repair of these elements entails at the very least repainting or otherwise coating all of the elements in order to seal the fibers and prevent them from entering the atmosphere. On broken tiles, this includes sealing the jagged edges, which are most likely to cause asbestos exposure.

Ideally, repair to these elements would include the REPLACEMENT of any tiles which are cracked and/or broken. The replacement of these members should be done in addition to the resealing of their exterior surfaces, as the cement coating on theses elements is very thin over the entire surface of the building. A cement coating which is too thin can just as easily exposed asbestos fibers to the environment as if the tiles were

broken.

While the repair option does not address the real need to restore some of the history to the Temple, it does serve the purpose of protecting the historic wood siding until such time as the funding can be procured for the restoration of this element. As with Option 1, all repairs to the shingles, including repainting, should be performed by a professional certified to work with asbestos. Respirators would be worn at all times for safety whenever one is to come into contact with these elements. This will still be an expensive undertaking, but it is the least expensive method available for reducing the health risks presented by the current condition of the tiles, and it is an effective method for protecting the historic siding while a project plan for this element's restoration is implemented.

Steel Fire Escape:

The fire escape which is located on the northern elevation of the Temple is a non-historic addition which is not at all sensitive to the historic nature of the structure. While the spiral shape looks elegant, it is impractical for use as a fire escape, as the configuration of the treads would impede a quick escape from the Temple in the case of a fire. As no pervasive fire suppression system has been installed in the Temple, the issue of being able to quickly and safely exit the building in an emergency is one of real concern. The State of Washington follows the Uniform Building Code (UBC), which states that a spiral stair may only be used as a required exit in single-dwelling structures, and that it may not be used as an emergency exit.[2]

The current condition of the fire escape, covered as it is with mold, and exhibiting signs of corrosion, would not permit a quick and safe evacuation of the Temple should one need to be undertaken. As this element is also insensitive and incongruous in addition to the Temple which does not meeting building code, it should be removed. A means of egress from the second floor is needs to be kept in order to comply with building code. As such, an alternative to the current fire escape which is both sensitive to the historic integrity of the building and meets code requirements needs to be considered.

The UBC informs us that the minimum number of exits required for an assembly-type building such as the Temple, whose occupant load is 500 persons or fewer is 2. This minimum is per-floor, unless the number of exits on the main level of discharge are meant to accomodate people exiting from upper floors as well.[3] As there are currently three

exits from the building on the first floor, the presence of a single fire exit on the second floor should be sufficient. Consult the building code and local ordinances for definitive answers to this question. Given the size and use of the building, it is not feasable to remove the spiral fire escape without replacing it with an alternative means of egress. In replacing this member, a historical architect should be consulted in order to design an alternative exit which is both sensitive to the historic integrity of the structure, and meets modern building codes.

For help in considering a replacement for the fire escape, or some other alternative fire suppression system, the National Fire Prevention Association should be also consulted, as they are a great resource for national fire and other safety codes, as well as for recommendations on fire escapes, etc. Their web site can be accessed at www.nfpa.org. Particular attention should be paid to the 101 Life Safety Code, which might help provide a solution to this problem. If further questions arise, the local fire department, or the Temple's insurance inspector may also be consulted. It must be remembered, however, that whatever solution is decided upon by the Lodge needs to be considerate of the historic nature of the building.

Lower Hall Ceiling:

The historic ceiling of the Lower Hall on the Temple's interior remains intact, and this element can be seen from the crawlspace which lies between the first and second floors of the building. The ceiling was historically sheathed with tongue and groove paneling, and trimmed with a simple convex trim piece. Calcimining, a zinc based paint was originally applied to the interior walls of the Temple, and this can be seen in the area of the crawlspace as well.

In order to restore some degree of historic integrity to the interior of the structure, at the very least a restoration needs to be undertaken on the Lower Hall ceiling. As this is the only area of the Temple where historic ceiling or wall finishes are visible, it is the ideal place to start on the restoration of the interior. It is also the only place on the interior of the building where it is practical at this point in time to undertake a restoration, given the fact that little to no evidence exists of the other historic interior finishes, either within the structure, or within the written record of its history. In order for any further interior restorations to occur, there needs to be either intrusive investigation resulting in the

revealing of historic fabric, or source documentation which definitively speaks to the historic interior finishes needs to be discovered. At the time of the writing of this document, no such resources are known to exist.

Fire Proofing:

At the same time the Lower Hall ceiling is being restored, measures can be taken to fireproof the building in lieu of installing a pervasive sprinkler system. The current batten ceiling in this room should be removed, and the historic ceiling temporarily uninstalled. In this way, a fire-rated ceiling can be installed underneath the historic ceiling, effectively reducing the fire risk, while at the same time remaining invisible and preserving the historic integrity of the Temple. Fire-resistant ceilings which would work in the Temple given its spatial configuration and materials include those made of gypsum plaster, or gypsum wall board supported by non-combustible framing.[4]

Since no pervasive fire supression system has been installed in the Temple, the installation of fire-resistant walls and ceilings are imperative. There are ways in which the Temple can be made fire-resistant while at the same time being invisible and remaining sensitive to the historic integrity of the building. Modern code requires that loadbearing floors and ceilings in a wood light-frame construction have 1 hour fire resistance ratings. [5] Interior framing members on a structure which has a light wood frame like the Temple can have one hour of fire protection added by applying 5/8" type X gypsum board or its equivalent to each face of the wall studs.[6] This modification can be installed underneath the current wall sheathing, again making it invisible.

Structural Continuity:

The obvious lack of structural continuity in the framing systems employed in the construction of the Temple is the second largest issue affecting the structure, after its loss of historic integrity. This discordancy is most readily visible in the area of the attic, where the numerous additions to the structure can be easily read. The installation of these additions was undertaken in a piece-meal, hasty manner, using materials of different nominal dimensions and shoddy installation techniques. For example, the wall studs for the modified gable end which resulted from the 1939 addition to the southern elevation were scabbed directly onto the historic wall studs. These newer members do not even run to the

floor joists, which effectively reduces both their structural stability and their ability to handle lateral loads.

This phenomenon of incongruity is not constrained to the wall studs. It follows into the bracing members and rafters of the subsequent additions to the Temple, which appear to be equally piece-meal and harried in their installation. It is imperative that a structural engineer be retained to perform an exhaustive and intrusive investigation of the Temple's structural systems; and that this person not only check for continuity within the structural system, but for the connections between walls, ceilings, floors, sills, and foundations as well. It is important that the structural system be updated so that all load bearing members are transferring loads properly, and that this system be thoroughly checked for improper installation which could ultimately result in an inability to handle lateral loads and structural failing. This is especially important in the area of the foundations, where the system of connectivity to the building could not be conclusively determined. The structural engineer should pay particular attention to the proper connection between this element and the rest of the structure.

Roof Deflection:

Recommendations to remedy the deflection in the Temple's roof and in the floor of its first story are beyond the scope of this document, as its author is not a certified structural engineer. As such, a structural engineer does need to be retained in order to consult on the deflection, as well as to determine its ultimate cause and recommend appropriate measures for correcting the problem. All modifications which result from this analysis should be sensitive to the historic fabric of the Temple, and they should follow the Secretary of the Interior's Standards for Rehabilitation (appendix).

Surface Issues:

While the previous recommendations in this document have focused issues relative to the loss of the Temple's historic integrity and the lack of continuity in its structural members, the following recommendations will focus on issues related to surface finishes and their treatment. These will be discussed by element.

Paint Issues:

Keeping painted elements on a structure in good repair is one of the most cost effective ways to protect the building from deterioration. Paint issues facing the Temple are confined to the exterior of the building, and involve all of the exterior painted surfaces, including the Doric columns.

Preparing the wooden member on the Temples exterior for new paint application will be a time consuming process. Needless to say, doing this very important step properly the first time will ensure that continued maintenance to these elements in the future can be undertaken with ease. Before any of the preparation work is undertaken however, the National Park Service's Preservation Bulletin on painting historic exterior wood members (included in appendix) should be consulted. In the case of the columns, the paint should first be tested for lead before the refinishing work begins. The goal of the preparation is to have clean surfaces with no loose paint. In no case should high pressure water-sprayers or sand plasters be used in removing the paint from any surface. These cause significant damage to the underlying structures.

Exterior elements which will require repainting include the window frames, corner boards, facia, doors, and all trim pieces, as well as the columns. For all items excepting the columns, the surfaces should be primed before paint is applied, and the application should be done with brushes. In areas where the wood members are degraded, they should be repaired or replaced in kind before refinishing. Care should be taken to prevent the paint from flowing onto the glass lights of the windows. This has been observed in the interior of these elements. Likewise, care should be taken to avoid getting paint on any other element of the structure except those which are being painted. Masking should be used to avoid this happening. As the historic paint color on the Temple exterior has always been white, no other color should be used when refinishing these elements.

Columns:

The columns which grace the Temple's eastern elevation are historic, both in the date of their installation, and the date of their construction, though they are not original to the structure. Currently, they are cosmetically only in fair condition. The paint degradation on these elements is extensive, and something needs to be done quickly in order to prevent degradation to the wooden sub-structure or loss of the historic

fabric.

Before the columns are refinished, a test should be performed by a qualified professional in order to ascertain whether the paint on the columns is lead based. If it is, than the paint removal should be performed by someone certified to remove and dispose of lead paint. Refinishing of these members should be undertaken following the *Secretary of the Interior's Standards*, and under the recommendation of Preservation Brief #10: *Exterior Paint Problems on Historic Woodwork*.

Masonry Issues:

The Temple's composite foundations have suffered some damage in the form of cracking in its board-formed concrete portions. These cracks need to be regularly monitored for any changes, and a structural engineer should be consulted to determine their cause. On the northern elevation, where the original stone foundation is still visible, a sloppy re-pointing job is apparent to either side of the wood access door. Here, the mortar bleeds out and covers large sections of the stones. If at some point in the future this element is re-pointed, then great care should be taken in the mortar's application, being sure not to cover the historic stones, and making a concerted effort to match the color of the historic mortar as much as possible.

It is also advisable that before any future re-pointing efforts are made, that the make up of the historic mortar be tested. Any re-pointing efforts should use historically sensitive mortar. Under no circumstance should Portland Cement be used, as this material is usually many times harder than the stones it is securing, which often leads to spalling or other degradation to these elements.

Windows:

During the repainting of the Temple's exterior wooden features, the windows should also be re-glazed as necessary. There are sections, on the southern elevation especially, where the window glazing is missing entirely. This needs to be fixed immediately in order to prevent damage to the wooden members of the windows or loss of their historic lights. In areas where the glazing is cracked or discolored, repairs should be made as necessary.

After repair, the glazing should also be painted, as this effectively forms the weather seal for the window.

Interior Surface Issues:

The interior surfaces of the Temple are in good condition, excepting the wall above the toilet in the first floor women's restroom, which shows signs of water damage. It is suggested that a plumber be consulted to determine the cause of this damage, as well as to suggest necessary repairs. As was previously discussed earlier in this chapter, the historic ceiling of the Lower Hall should be restored, and fireproofing installed throughout the Temple. Floor coverings such as carpet and vinyl tile should be cleaned, and replaced as necessary.

Ideally, an extensive restoration of the historic finishes would be undertaken on the interior of the Temple. However, not enough evidence of these finishes exists to make informed decisions regarding these elements. As intrusive investigation reveals clues about the historic interior finishes, these elements can be restored as funding becomes available.

While much work needs to be undertaken relative to the restoration, structural assessment, and maintenance issues facing the Temple, these undertakings are imperative for the proper preservation of the structure. The Temple is a truly unique building, which is important to not only the Lodge, but to the surrounding community as well. It is a resource which could never be replaced, imbued as it is with the rich social and architectural history of its community. These recommendations must be enacted in order to rescue the structure and preserve it for future generations.

Notes

[1]Netsch, Timothy. A Documentation and Restoration Plan for the First Christian Advent Church in John Day, Oregon, Masters Thesis, University of Oregon, 1991, p. 50.

[2]Allen, Edward, and Iano, Joseph, The Architect's Studio Companion, (New York: John Wiley and Sons, Inc., 1995), p. 270.

[3]Ibid, p. 239.

[4]Ibid, p. 439.

[5]Ibid, p. 447.

[6]Ibid, p. 445.

CONCLUSION

The Temple which houses the Whidby Island Lodge is an important and imposing structure which embodies not only the history of the Lodge members, but the larger history of the area known as Ebey's Landing, and Whidbey Island in general. The Lodge was founded by some of the first families to inhabit Whidbey Island, and indeed the Puget Sound region, in the latter half of the 19th century. As such, the Temple which was constructed to house the Lodge is a tangible, though not indelible record of the history of not only its members, but the Island in general. Today, the Temple stands as the only surviving member in the Puget Sound region, and it is one of the ten oldest Temples still in existence in Washington State. These facts alone warrant preserving the structure, as it is an architectural gem rich in social history which could never be replicated or replaced.

In the 132 years since the Temple was constructed, it has undergone changes, modifications, alterations, and additions, all of which combine to form a rich and endearing tapestry. It is quite unusual for a building to be owned and occupied for such a long period of time by the same group of people, and this is just one of the many reasons why the Temple is so very unique. In the Temple the numerous modifications, which are all historic in their own right, add layer upon layer of history to the structure, making it a prime example for studying how gradual yet constant changes over time effect the interpretation of a building. However, the installation of these additions with the sole motivation of utility effectively served to diminish the historic integrity of the structure, as preservation of the historic features of the building were not taken into consideration. As such, many of the recommendations given in this document aim to restore some of the integrity which has been lost due to these modifications.

There are a number of ways in which the historic integrity of the Temple can be restored. These include the removal of the cement-asbestos shingles on the exterior of the structure, and the restoration of the original wood lap siding, as well as the removal of the spiral fire escape on the northern elevation (and its replacement with a historically sensitive alternative), and the restoration of the historic ceiling on the Temple's first floor. While these projects will be both expensive and time consuming, it is imperative that they be undertaken if any hope of restor-

ing the structure's historic integrity is to be had. Given the importance of the building to both the Lodge and the surrounding community, it is absolutely essential that these changes be implemented with the utmost care and consideration for the structure.

Primary to the proper undertaking of these tasks is an increased awareness on the part of the Lodge of preservation theories and practice. A number of sources for information have been delineated within this document, and it is sincerely hoped that the Lodge will utilize these resources in order to gain a full understanding of why it is so important that these rehabilitation directives be followed.

Besides issues related to the historic integrity of the structure, this report revealed the very real need for life safety issues and operations responsibilities to be addressed. The removal of the northern fire escape cannot be undertaken without replacing this element with a historically sensitive alternative, as modern building code requires a certain number of means of egress from every floor. To this end, a historic architect should be consulted to provide an alternative to the current fire escape which is both sensitive to the history of the structure and meets modern code requirements. There is also a real need for a fire suppression in the Temple. It is recommended that in the course of restoring some of the Temple's interior elements, that fire-resistant gypsum board be installed behind or underneath these features in order to increase the structure's fire protection by an hour.

Operations responsibilities including the implementation of a broad based maintenance plan are necessary in order to ensure the continued operation of the building. Routine maintenance issues such as keeping the roof clear of debris, and preventing plantings from growing immediately adjacent to the structure should be addressed; and exterior surfaces should be cleaned, repaired, and repainted as necessary.

Historic preservation should never be considered a luxury or a frivolous expense. Historic preservation is the means by which we conserve and protect not only building materials, but a sense of place and a building's history as well. The Whidby Island Lodge is a very real and very important physical manifestation of the tenets of Freemasonry, as well as of the social history of the Lodge and the surrounding community of Coupeville. The structure has served as a meeting house and gathering place for the larger community for almost one and a half centuries, playing a central role in the social history of the town. If the preservation

directives herein delineated are followed, the Temple's role in the lives of Lodge members and the surrounding community is guaranteed to continue for many generations to come.

Overall, the study of the Whidby Island Lodge was fascinating, in that it brought together under one roof the social, political, and architectural history of an area which expands far beyond the lines of the building plot. It allowed for amalgamation of the theoretical, analytical, and technical aspects of preservation, and their application to a document which will be beneficial to a wide range of people. The Temple is an incredibly important structure. It should not and cannot be allowed to fall by the wayside. It needs to be preserved so that future generations may continue to use the structure and add their own chapters to the long and impressive history of this very important building.

BIBLIOGRAPHY

Anderson, James. The new book of constitutions of the most ancient and honourable fraternity of free and accepted masons. Containing their history, charges, regulations, & c. ... Collected from the book of constitutions published in England, in the year 1738, by our worthy brother James Anderson, D.D. For the use of the lodges in Ireland. By Edward Spratt, sec. Dublin, 1751. *Eighteenth Century Collections Online. Gale Group. Internet On-line. Available from* http://0-galenet.galegroup.com.janus.uoregon.edu:80/servlet/ECCOInternet On-line. Accessed 12 March 2006.

"A Brief History of Whidbey Island." Internet On-line. Available from http://www.nps.gov/archive/ebla/tour/tour0.htm. Accessed 01 October 2006.

Brand, Stewart. How Buildings Learn: What Happens After They're Built. London: Penguin Books, 1994.

Burns, John A., ed. Recording Historic Structures. New York: The American Institute of Architects Press, 1989.

Butler, Manlove N. American hand-book and citizen's manual. [S.l. : s.n], 1891.

Carnes, Mark C.; Clawson, Mary Ann.; Moore, William D.; and Ames, Kenneth L. Theatre of the Fraternity; Staging the Ritual Space of the Scottish Rite of Freemasonry, 1896-1929. Minneapolis, MN: Frederick R. Weisman Art Museum; Jackson, M.S.: Distributed by the University Press of Mississippi, 1996.

Chamberlain, Martin N. "Collected Correspondence of Colonel Granville Owen Haller, USA." Compiled from family documents. La Jolla, CA, 1989.

Clawson, Mary Ann. Constructing Brotherhood: Class, Gender, and Fraternalism. Princeton, N.J.: Princeton University Press, 1989.

Coates, Frank C. "Names and Dates in History." Coupeville, WA: Whidby Island Lodge #15, F. & A. M., 1964.

Coates, Frank C. "Notes of History Whidby Island Lodge #15, F. & A.M. Coupeville, Washington." Coupeville, WA: Whidby Island Lodge #15, F. & A. M., 1964.

"Congressional Delegations from Washington State." HistoryLink.org. Essay #5463. 19 August 2003. Internet On-line. Available from <http://www.historylink.org/essays/output.cfm?file_id=5463>. Accessed 14 September 2006.

Cook, Jimmie Jean. "A Particular Friend, Penn's Cove." A History of the Settlers, Claims, and Buildings of Central Whidbey Island. Coupeville, W.A.: Island County Historical Society, 1973; reprint ed.; 1988.

Curl, James Stevens. The Art and Architecture of Freemasonry: an Introductory Study. Woodstock, N.Y.: Overlook Press, 1993.

Darst, Peggy Christine. Spirit of the Island…A Photo History of Oak Harbor with Coupeville and San de Fuca on Beautiful Whidbey Isle. San de Fuca, WA: Peggy Christine Darst, 2005.

Darst, Peggy Christine. Step Back in Time…Reflections of San de Fuca, Coupeville, Oak Harbor. A Photo Journey of Whidbey's Island and a Saga of an Irish Pioneer Family. San de Fuca, W.A.: Peggy Christine Darst, 2004.

Dumenil, Lynn. Freemasonry and North American Culture, 1880-1930. Princeton, N.J..: Princeton University Press, 1984.

Ebey, Issac N. Letter to his brother, Winfield Scott Ebey, April 25, 1851. Courtesy of the Island County Historical Society, Coupeville, Washington.

Ebey, Winfield Scott. "Winfield Scott Ebey Papers, 1850-1919." Seattle, W.A.: University of Washington Libraries Photocopy Service, ms 62002079, 1969.

Farrar, Victor J. "The Diary of Colonel and Mrs. I.N. Ebey." Washington Historical Quarterly Vol. VIII (July 1916) : 126-315.

Freemasons, and Hunter, Frederick Maurice. A study and an interpretation of the Regius Manuscript, the earliest Masonic document. The beginnings of Anglo-Saxon masonry and masonic history as an ever-widening road to freedom. Portland: Research Lodge of Oregon, no. 198, A.F. & A.M., 1952.

Freemasons, Grand Lodge of the State of Washington, and Upton, William H. The Masonic code of Washington: being the constitution, by-laws and regulations of the Most Worshipful Grand Lodge of Free and Accepted Masons of Washington, with annotations. Tacoma: Allen & Lamborn; revised ed., Tacoma: Horace W. Tyler, 1908.

Freemasons, Whidby Island Lodge #15, F. & A.M., Coupeville, Washington. History of the Lodge 1960-2000. Coupeville, WA: Whidby Island Lodge #15, F. & A.M., 2000.

Grand Lodge of Washington Territory. Dispensation Letter to form Whidby Island Lodge #15. 22 July 1869.

Hamilton, John D. Material Culture of the American Freemasons. Lexington, M.A.: Musuem of Our National Heritage; Hanover, N.H.: Distributed by University Press of New England, 1994.

Haller, Granville O., et al. Request for dispensation to the Grand Lodge of Washington Territory. June 1869.

Hayton-Keeva, Sally. Ancestral Walls: Old Abodes of Central Whidbey Island. Coupeville, Washington: Sagn Books, 2003.

Hodson, John Milton. Masonic History of the Northwest. San Francisco: History Publishing Company, 1902.

Island County, Washington. Marriage Certificates 1855-1891. Marriages, returns filed and recorded in Probate Record, Clerks Office. Records available On-line from <http://www.rootsweb.com/~waisland/marr1isc.txt>. Accessed 05 September 2006.

Kellog, George A. A History of Whidbey's Island. Coupeville, Washington: Island County Historical Society, 2002.

Lange, Greg. "Native Americans force settlers to leave Whidbey Island in August 1848." HistoryLink.org. Essay #5246. 19 February 2003. Internet On-line. Available from <http://www.historylink.org/essays/output.cfm?file_id=5246>. Accessed 14 September 2006.

Macoy, Robert. A Dictionary of Freemasonry. New York: Gramercy Books, 2000.

McClary, Daniel C. "Island County—Thumbnail History." HistoryLink.org. Essay #7523. 14 November, 2005. Internet On-line. Available from <http://www.historylink.org/essays/output.cfm?file_id=7523>. Accessed 08 August 2006.

McRoberts, Patrick. "Island County's first Commissioners' meeting takes place in Coveland on April 4, 1853," HistoryLink.org. Essay #5259. 21 February 2003. Internet On-line. <Available from http://www.historylink.org/essays/output.cfm?file_id=5259>. Accessed 14 October 2006.

Neil, Dorothy. De Ja Views: Historical Pictorial of Whidbey Island. Oak Harbor, W.A.: Island Images, Inc., 1990.

Netsch, Timothy Francis. "A Documentation and Restoration Plan for the First Christian Advent Church in John Day, Oregon." Master's Thesis, University of Oregon, 1991.

Rothschild, D.C.H. Letter of recommendation to the Grand Lodge of Washington Territory for the formation of a lodge on Whidby Island, as recommended by Port Townsend Lodge #6. 24 June 1869.

The Scientific Magazine, and Freemason's Repository. Vol. 1: The Freemason's Magazine: or General and Complete Library. London: George Cawthorn, British Library No. 132, 1797.

Stensland, Jessie. "Historian Fails in Scalp Hunt." Whidbey News-Times. 24 May 2003. Internet On-line. Available from <http://www.islandhistory.org/wntTrebon.htm>. Accessed 18 July 2006.

Stewart, K.J. The Freemason's manual: a companion for the initiated through all the degrees of Freemasonry, from the entered apprentice to the higher degrees of knighthood. Philadelphia: E.H. Butler, 1853.

Stovel, H. "A Significance-driven Approach to the Development of the Historic Structure Report." APT Bulletin vol. 28, no. 1 (1997) 45-47.

Tabbert, Mark A. American Freemasons: Three Centuries of Building Communities. Lexington, M.A.: National Heritage Museum; New York: Distributed by New York University Press, 2005.

Trust Board of Ebey's Landing National Historical Reserve. "Ebey's Landing National Historical Reserve Volume 1: Draft General Management Plan and Environmental Impact Statement." Seattle, W.A.: National Parks Service, Pacific West Region Office, 2005.

U.S. Census Bureau. "1860 Federal Census, Island County, Washington Territory." Published and transcribed April 26 1999, Dianne L. Arthur and Kevin Fraley, USGenWeb Census Project. Available from <http://www.rootsweb.com/%7Ecenfiles/wa/island/1860/60ic.txt>, accessed 29 September 2006.

U.S. Census Bureau. "1871 Federal Census, Island County, Washington Territory." Published and transcribed 1998, Ralph L. Seefeld, Genealogical Society of South Whidbey Island. Available from <http://www.rootsweb.com/~wagsswi/census1871.htm >. Accessed 29 September 2006.

Whidby Island Lodge #15, F. & A.M. Coupeville, Washington. Lodge Meeting Minutes. Vol. 1. (June 1869 – June 1883).

Whidby Island Lodge #15, F. & A.M. Coupeville, Washington. Lodge Meeting Minutes. Vol. 2. (July 1883 - June 1903).

Whidby Island Lodge #15, F. & A.M. Coupeville, Washington. Lodge Meeting Minutes. Vol. 3. (July 1903 – June 1916).

"Whidby Island Lodge History 1924-1950." Courtesy of the Island County Historical Society, Coupeville, Washington.

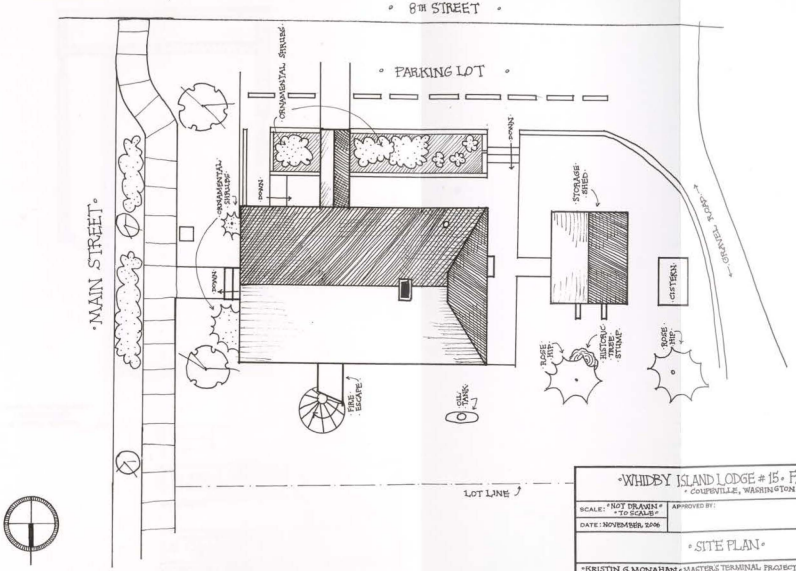
Weisberger, R. William.; McLeod, Wallace.; and Morris, S. Brent., ed. Freemasonry on Both Sides of the Atlantic: Essays Concerning the Craft in the British Isles, Europe, the United States, and Mexico. Boulder: Eastern European Monographs; New York: Distributed by Columbia University Press, 2002.

Wilmshurst, W.L. The Meaning of Masonry. London: Rider, 1927; reprint ed.; New York: Gramercy Books, 1980.

Youngson, William Wallace. Symbolism of the Rose Croix Degree. Portland, O.R.: P.M. MacCollister, 1929.

APPENDIX

SECTION A
MEASURED AND SCALED DRAWINGS



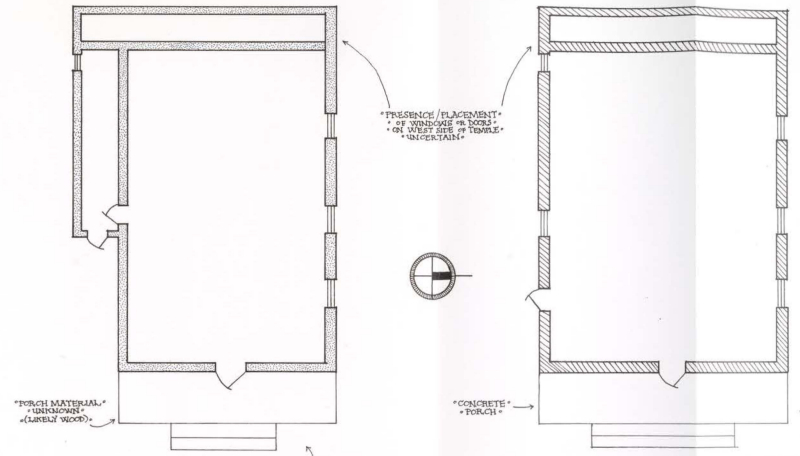
"WHIDBY ISLAND LODGE #15 F.&A.M."
"COUPEVILLE, WASHINGTON"

SCALE: "NOT DRAWN" "TO SCALE"	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER, 2006		REVISED

"SITE PLAN"

"KRISTIN G. MONAHAN" "MASTERS TERMINAL PROJECT"
"UNIVERSITY OF OREGON" "HISTORIC PRESERVATION"

DRAWING NUMBER

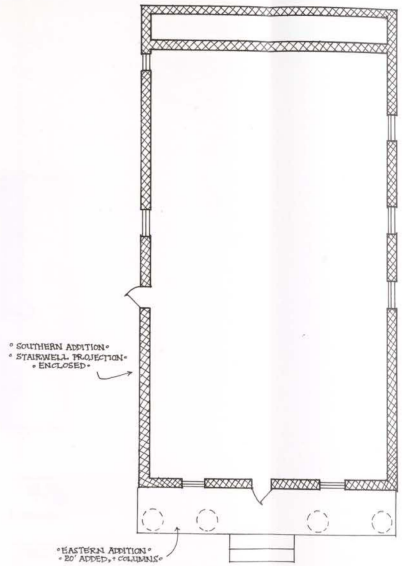


"WHIDBY ISLAND LODGE #15 F.&A.M."
"COUPEVILLE, WASHINGTON"

SCALE: "NOT DRAWN TO SCALE"	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER 2006		REVISED

"BUILDING FOOTPRINT"
"TEMPLE CHANGES OVER TIME"
"(INFERRED)"

"KRISTIN G. MONAHAN" "MASTER'S TERMINAL PROJECT" "UNIVERSITY OF OREGON" "HISTORIC PRESERVATION"	DRAWING NUMBER

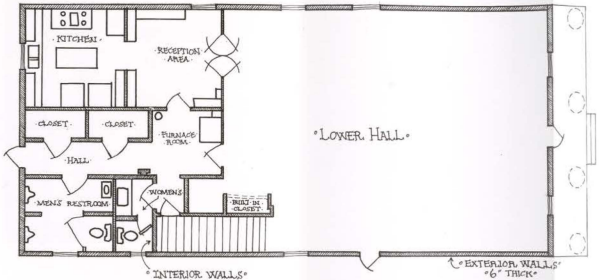


"WHIDBY ISLAND LODGE # 15" F. @ A.M."
" COUPEVILLE, WASHINGTON"

SCALE: "NOT DRAWN" "TO SCALE"	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER, 2006		REVISED

"BUILDING FOOTPRINT"
"CHANGES OVER TIME PAGE 2."
(INFERRED)

"KRISTIN G. MONAHAN" "MASTER'S TERMINAL PROJECT" "UNIVERSITY OF OREGON" "HISTORIC PRESERVATION"	DRAWING NUMBER

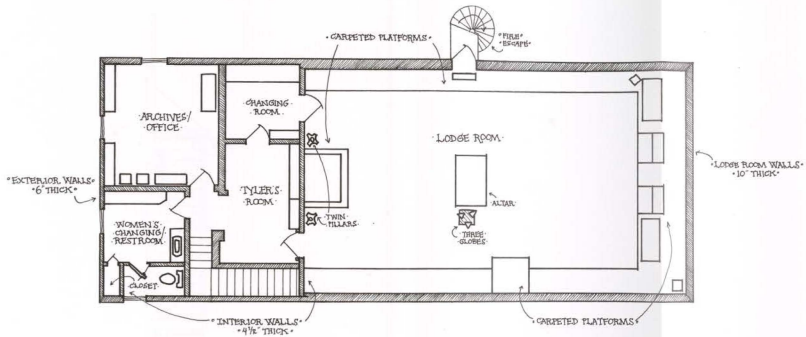


WHIDBY ISLAND LODGE #15 F.&A.M.
COUPEVILLE, WASHINGTON

SCALE: 1/8" = 1'	APPROVED BY:	DRAWN BY: K.M.
DATE: NOVEMBER, 2006		REVISED

FIRST FLOOR PLAN

KRISTIN G MONAHAN - MASTER TRAINING PROJECT - UNIVERSITY OF OREGON - HISTORIC PRESERVATION	DRAWING NUMBER



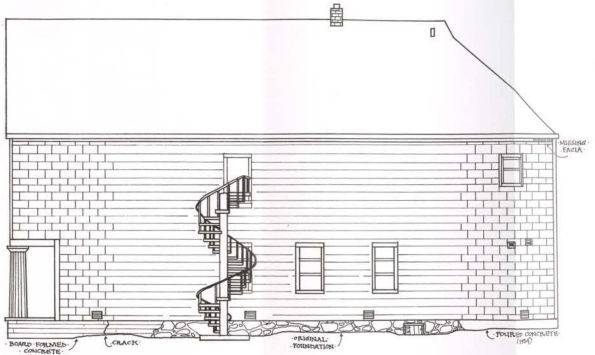
WHIDBY ISLAND LODGE #15 • F. & A.M.
COUPEVILLE, WASHINGTON

SCALE: 1/8" = 1'	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER 2006		REVISED

SECOND FLOOR PLAN • TEMPLE

KRISTIN G. MCMAHAN • MASTER'S THESIS PROJECT
UNIVERSITY OF OREGON • HISTORIC PRESERVATION

DRAWING NUMBER

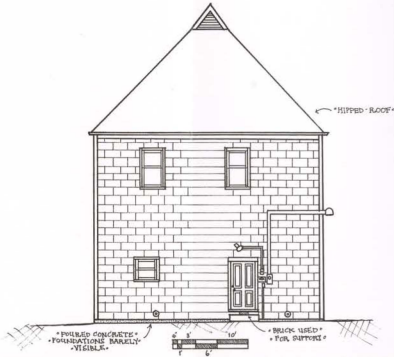


"WHIDBY ISLAND LODGE #15 " F. & A.M."
" COUPEVILLE, WASHINGTON "

SCALE: 1/8"-1'	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER 2008		REVISED

" NORTHERN ELEVATION "
(EAST ORIENTATION FROM REFLECTION)

"KRISTIN G MONAHAN " MASTERS TERMINAL PROJECT " UNIVERSITY OF OREGON " HISTORIC PRESERVATION "	DRAWING NUMBER



WHIDBY ISLAND LODGE #15 F.&A.M.
COUPEVILLE, WASHINGTON

SCALE: 1/8" = 1'	APPROVED BY:	DRAWN BY: K.M.
DATE: DECEMBER, 2006		REVISED

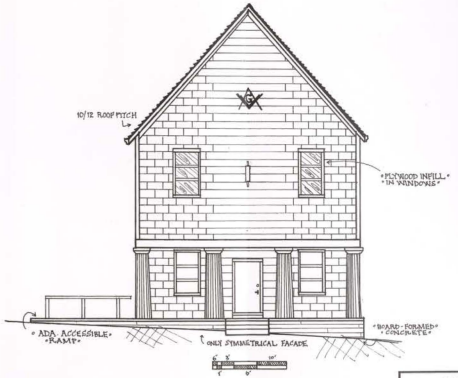
WESTERN ELEVATION

KRISTIN G. MONAHAN · MASTER'S TERMINAL PROJECT · UNIVERSITY OF OREGON · HISTORIC PRESERVATION	DRAWING NUMBER

0' 5' 15'

WHIDBY ISLAND LODGE #15 • F. & A.M.
• COUPEVILLE, WASHINGTON •

SCALE: 1/8" = 1'	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER, 2006		REVISED
• SOUTHERN ELEVATION • (DOES NOT SHOW ROOF REFLECTION)		
• KRISTIN G. MONAHAN • MASTERS TERMINAL PROJECT • • UNIVERSITY OF OREGON • HISTORIC PRESERVATION •		DRAWING NUMBER



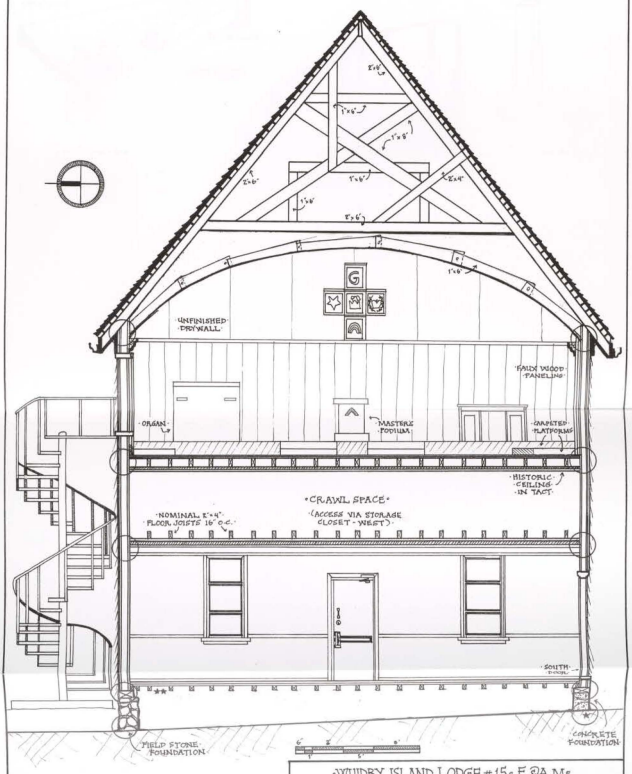
WHIDBY ISLAND LODGE # 15 F.&A.M.
COUPEVILLE, WASHINGTON

SCALE: 1/8" = 1'	APPROVED BY:	DRAWN BY K.M.
DATE: DECEMBER, 2006		REVISED

EASTERN ELEVATION

KRISTIN C. MONAHAN - MASTERS TERMINAL PROJECT
UNIVERSITY OF OREGON - HISTORIC PRESERVATION

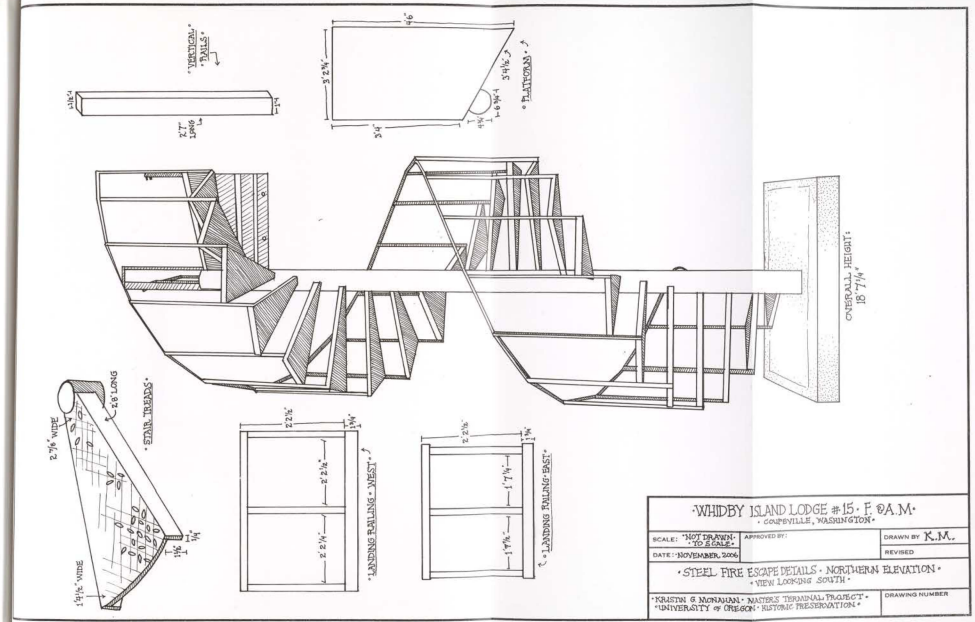
DRAWING NUMBER

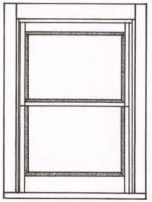


★ CONNECTIONS IN CIRCLED AREAS UNABLE TO BE DETERMINED CONCLUSIVELY WITHOUT INTRUSIVE INVESTIGATION.

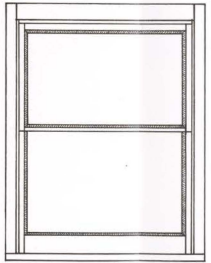
★★ DOTTED LINES REPRESENT INFERRED CONFIGURATIONS.

"WHIDBY ISLAND LODGE #15 • F.&A.M." • COUPEVILLE, WASHINGTON •		
SCALE: 1/4" = 1'	APPROVED BY:	DRAWN BY: K.M.
DATE: DECEMBER, 2009		REVISED BY:
"TEMPLE" "CROSS SECTION" "VIEW LOOKING EAST"		
"KRISTIN G. MONAHAN • MASTERS TERMINAL PROJECT • UNIVERSITY OF OREGON • HISTORIC PRESERVATION"		DRAWING NUMBER:

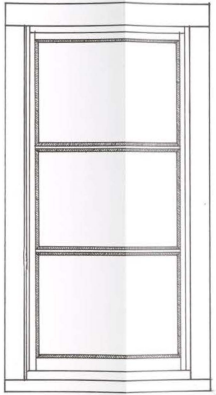

VERTICAL RAILS
PLATFORMS
OVERALL HEIGHT: 18'-7¼"
2'-7½" WIDE
18'-0" LONG
STAIR TREADS
LANDING RAILING - WEST
LANDING RAILING - EAST
WHIDBY ISLAND LODGE #15 · F.&A.M.
COUPEVILLE, WASHINGTON
SCALE: "NOT DRAWN TO SCALE"
APPROVED BY:
DRAWN BY K.M.
DATE: NOVEMBER, 2006
REVISED
STEEL FIRE ESCAPE DETAILS - NORTHERN ELEVATION
VIEW LOOKING SOUTH
KRISTIN G. MCNAMARA · MASTERS TERMINAL PROJECT
UNIVERSITY OF OREGON · HISTORIC PRESERVATION
DRAWING NUMBER



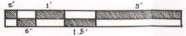
1ST STORY WINDOW SOUTH



2ND STORY WINDOW WEST



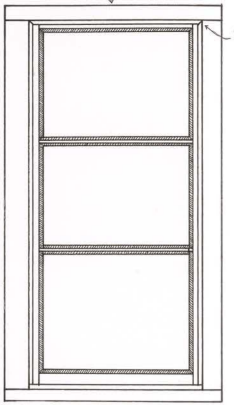
WINDOW SOUTH, EAST, & NORTH



WHIDBY ISLAND LODGE #15 F. & A.M. COUPEVILLE, WASHINGTON		
SCALE: 1" = 1'	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER 2006		REVISED
EXTERIOR WINDOW DETAILS		
KRISTIN G. MCNAHAN - MASTER'S TERMINAL PROJECT - UNIVERSITY OF OREGON - HISTORIC PRESERVATION		DRAWING NUMBER

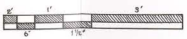
"WINDOW TRIM PIECE EXTENDS" "TO TOUCH CEILING"

"BEVELED" "EDGE"



"EXTERIOR VIEW"

"INTERIOR VIEW"



"WHIDBY ISLAND LODGE #15 · F.&A.M."
"COUPEVILLE, WASHINGTON"

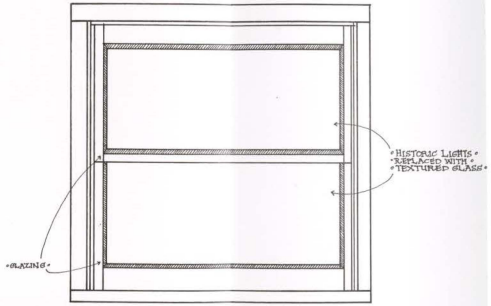
SCALE: 1"=1'	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER, 2006		REVISED

"INTERIOR & EXTERIOR"

"WINDOW DETAILS · EASTERN ELEVATION"

"FIRST FLOOR"

"KRISTIN G. MONAHAN" "MASTERS TERMINAL PROJECT" "UNIVERSITY OF OREGON" "HISTORIC PRESERVATION"	DRAWING NUMBER

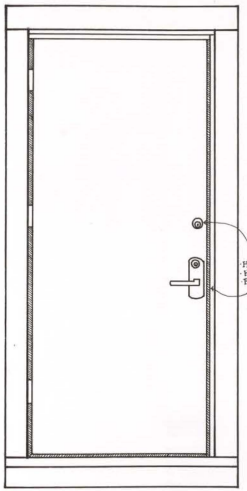


WHIDBY ISLAND LODGE # 15 • F. & A.M.
COUPEVILLE, WASHINGTON

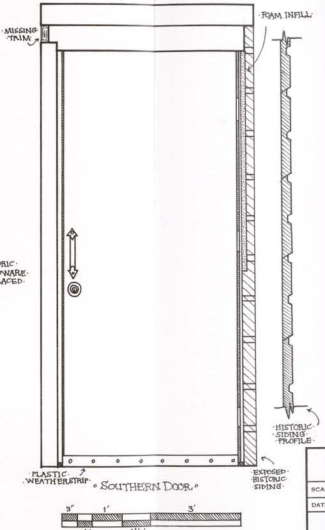
SCALE: 1½" = 1'	APPROVED BY:	DRAWN BY K. M.
DATE: NOVEMBER 2004		REVISED

FIRST FLOOR WINDOW - SOUTH ELEV.

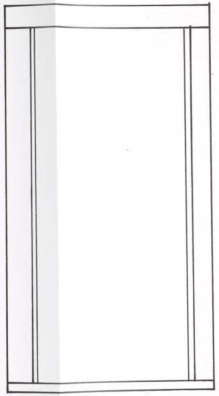
KRISTIN G MONAHAN • MASTERS TERMINAL PROJECT • UNIVERSITY OF OREGON • HISTORIC PRESERVATION	DRAWING NUMBER



EASTERN DOOR



SOUTHERN DOOR



NORTHERN EMERGENCY EXIT
DOOR
(FORMER WINDOW FRAME)

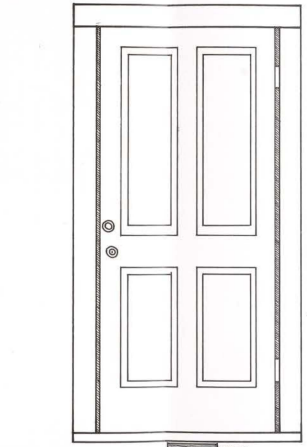
WHIDBY ISLAND LODGE # 15 · F.&A.M.
COUPEVILLE, WASHINGTON

SCALE: 1" = 1'	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER, 2006		REVISED

EXTERIOR DOOR DETAILS · P6.1

KRISTIN G. MONAHAN · MASTERS TERMINAL PROJECT
UNIVERSITY OF OREGON · HISTORIC PRESERVATION

DRAWING NUMBER



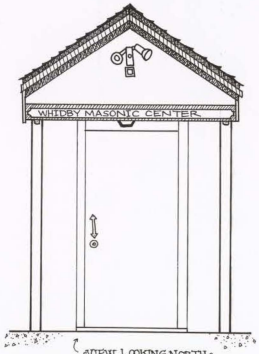
WHIDBY ISLAND LODGE #15 F. & A.M.
COUPEVILLE, WASHINGTON

SCALE: 1"=1'	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER, 2006		REVISED

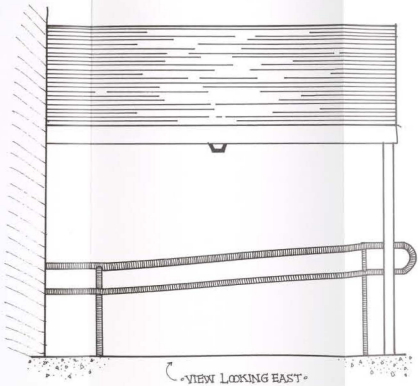
EXTERIOR DOOR DETAILS PG. 2

KRISTIN G MONAHAN • MASTERS TERMINAL PROJECT
UNIVERSITY OF OREGON • HISTORIC PRESERVATION

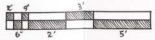
DRAWING NUMBER



VIEW LOOKING NORTH
(DOOR: NOT TO SCALE)



VIEW LOOKING EAST

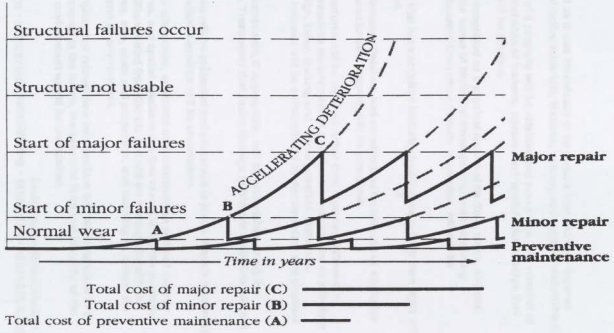


WHIDBY ISLAND LODGE #15 F. & A.M.		
COUPEVILLE, WASHINGTON		
SCALE: 1/2" = 1'	APPROVED BY:	DRAWN BY K.M.
DATE: NOVEMBER, 2006		REVISED
DETAILS OF SOUTHERN ELEVATION PROJECTING ROOF ("E" VIEWS)		
KRISTIN G. MONAHAN - MASTER'S TERMINAL PROJECT - UNIVERSITY OF OREGON - HISTORIC PRESERVATION		DRAWING NUMBER

APPENDIX

SECTION B
TECHNICAL SUPPLIMENTS

From Stewart Brand's How Buildings Learn: What Happens After They're Built, (New York: Penguin Group, 1994), p. 112.



PREVENTIVE MAINTENANCE (bottom line) not only costs markedly less in aggregate than repairing buildings failures, it reduces human wear and tear. A buildings whose systems are always breaking or threatening to break is depressing to the occupants, and that brings on another dimension of expense. This diagram is adapted from *Preventive Maintenance of Buildings* (New York: Van Nostrand Reinhold, 1991), p. 3.

NATIONAL PARK SERVICE

STANDARDS FOR REHABILITATION AND GUIDELINES FOR REHABILITATING HISTORIC BUILDINGS

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in a such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

-GUIDELINES-

The Approach

Exterior Materials
Roofs
Walls
Architectural Metals

Exterior Features
Roofs
Windows
Entrances + Porches
Storefronts

Interior Features
Structural System
Spaces/Features/Finishes
Mechanical Systems

Site

Setting

Special Requirements
Energy Efficiency
New Additions
Accessibility
Health + Safety

THE STANDARDS

Guidelines for Rehabilitation-->

HISTORICAL OVERVIEW - PRESERVING - rehabilitating - RESTORING - RECONSTRUCTING

-GUIDELINES-

The Approach

Exterior Materials

Exterior Features

Interior Features

Site

Setting

Special Requirements

THE STANDARDS

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate, Rehabilitation may be considered as a treatment. Prior to undertaking work, a documentation plan for Rehabilitation should be developed.

Choosing Rehabilitation as a Treatment

In **Rehabilitation**, historic building materials and character-defining features are protected and maintained as they are in the treatment Preservation; however, an assumption is made prior to work that existing historic fabric has become damaged or deteriorated over time and, as a result, more repair and replacement will be required. Thus, latitude is given in the **Standards for Rehabilitation and Guidelines for Rehabilitation** to replace extensively deteriorated, damaged, or missing features using either traditional or substitute materials. Of the four treatments, only Rehabilitation includes an opportunity to make possible an efficient contemporary use through alterations and additions.

Identify, Retain, and Preserve Historic Materials and Features

Like Preservation, guidance for the treatment **Rehabilitation** begins with recommendations to identify the form and detailing of those architectural materials and features that are important in defining the building's historic character and which must be retained in order to preserve that character. Therefore, guidance on ***identifying, retaining, and preserving*** character-defining features is always given first. The character of a historic building may be defined by the form and detailing of exterior materials, such as masonry, wood, and metal; exterior features, such as roofs, porches, and windows; interior materials, such as plaster and paint; and interior features, such as moldings and stairways, room configuration and spatial relationships, as well as structural and mechanical systems.

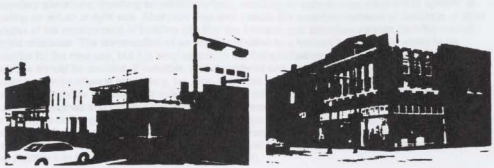
Protect and Maintain Historic Materials and Features

After identifying those materials and features that are important and must be retained in the process of **Rehabilitation** work, then ***protecting and maintaining*** them are addressed. Protection generally involves the least degree of intervention and is preparatory to other work. For example, protection includes the maintenance of historic material through treatments such as rust removal, caulking, limited paint removal, and re-application of protective coatings; the cyclical cleaning of roof gutter systems; or installation of fencing, alarm systems and other temporary protective measures. Although a historic building will usually require more extensive work, an overall evaluation of its physical condition should always begin at this level.

Repair Historic Materials and Features

Next, when the physical condition of character-defining materials and features warrants additional

work ***repairing*** is recommended. **Rehabilitation** guidance for the repair of historic materials such as masonry, wood, and architectural metals again begins with the least degree of intervention possible such as patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading them according to recognized preservation methods. Repairing also includes the limited replacement in kind--or with compatible substitute material--of extensively deteriorated or missing parts of features when there are surviving prototypes (for example, brackets, dentils, steps, plaster, or portions of slate or tile roofing). Although using the same kind of material is always the preferred option, substitute material is acceptable if the form and design as well as the substitute material itself convey the visual appearance of the remaining parts of the feature and finish.



This two-story brick commercial building--with its corner storefront--was originally constructed ca. 1876, then remodeled in 1916 in the Craftsman style and given a new, distinctive roofline. It served a number of uses, including a hotel, boarding house, saloon, restaurant, liquor store, warehouse, and office furniture showroom. The red brick walls had been painted several times over the years. Rehabilitation work included removal of multiple paint layers using a chemical stripper and thorough water rinse; spot repointing with matching mortar; and appropriate interior alterations. The building is now being used as a retail shop. Photos: NPS files.

Replace Deteriorated Historic Materials and Features

Following repair in the hierarchy, **Rehabilitation** guidance is provided for ***replacing*** an entire character-defining feature with new material because the level of deterioration or damage of materials precludes repair (for example, an exterior cornice; an interior staircase; or a complete porch or storefront). If the essential form and detailing are still evident so that the physical evidence can be used to re-establish the feature as an integral part of the rehabilitation, then its replacement is appropriate. Like the guidance for repair, the preferred option is always replacement of the entire feature in kind, that is, with the same material. Because this approach may not always be technically or economically feasible, provisions are made to consider the use of a compatible substitute material. It should be noted that, while the National Park Service guidelines recommend the replacement of an entire character-defining feature that is extensively deteriorated, they never recommend removal and replacement with new material of a feature that--although damaged or deteriorated--could reasonably be repaired and thus preserved.

Design for the Replacement of Missing Historic Features

When an entire interior or exterior feature is missing (for example, an entrance, or cast iron facade; or a principal staircase), it no longer plays a role in physically defining the historic character of the building unless it can be accurately recovered in form and detailing through the process of carefully documenting the historical appearance. Although accepting the loss is one possibility, where an important architectural feature is missing, its replacement is always recommended in the **Rehabilitation** guidelines as the first or preferred, course of action. Thus, if adequate historical, pictorial, and physical documentation exists so that the feature may be accurately reproduced, and if it is desirable to re-establish the feature as part of the building's historical appearance, then designing and constructing a new feature based on such information is appropriate. However, a second acceptable option for the replacement feature is a new design that is compatible with the remaining character-defining features of the historic building. The new design should always take into account the size, scale, and material of the historic building itself and, most importantly, should be clearly differentiated so that a false historical appearance is not created.

Alterations/Additions for the New Use

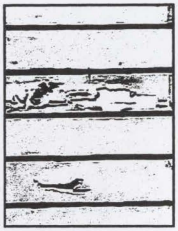
Some exterior and interior alterations to a historic building are generally needed to assure its continued use, but it is most important that such alterations do not radically change, obscure, or destroy character-defining spaces, materials, features, or finishes. Alterations may include providing additional parking space on an existing historic building site; cutting new entrances or windows on secondary elevations; inserting an additional floor; installing an entirely new mechanical system; or creating an atrium or light well. Alteration may also include the selective removal of buildings or other features of the environment or building site that are intrusive and therefore detract from the overall historic character. The construction of an exterior addition to a historic building may seem to be essential for the new use, but it is emphasized in the **Rehabilitation** guidelines that such new additions should be avoided, if possible, and considered only after it is determined that those needs cannot be met by altering secondary, i.e., non character-defining interior spaces. If, after a thorough evaluation of interior solutions, an exterior addition is still judged to be the only viable alterative, it should be designed and constructed to be clearly differentiated from the historic building and so that the character-defining features are not radically changed, obscured, damaged, or destroyed. Additions and alterations to historic buildings are referenced within specific sections of the Rehabilitation guidelines such as Site, Roofs, Structural Systems, etc., but are addressed in detail in New Additions to Historic Buildings (see nav bar, right).

Energy Efficiency/Accessibility Considerations/Health and Safety Code Considerations

These sections of the guidance address work done to meet accessibility requirements and health and safety code requirements; or retrofitting measures to improve energy efficiency. Although this work is quite often an important aspect of **Rehabilitation** projects, it is usually not a part of the overall process of protecting or repairing character-defining features; rather, such work is assessed for its potential negative impact on the building's historic character. For this reason, particular care must be taken not to radically change, obscure, damage, or destroy character-defining materials or features in the process of meeting code and energy requirements.

10 Preservation Briefs
Technical Preservation Services
HPS
National Park Service

Exterior Paint Problems on Historic Woodwork



Kay D. Weeks and David W. Look, AIA

A NOTE TO OUR USERS: The web versions of the **Preservation Briefs** differ somewhat from the printed versions. Many illustrations are new, captions are simplified, illustrations are typically in color rather than black and white, and some complex charts have been omitted.

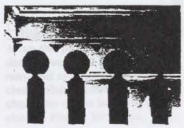
A cautionary approach to paint removal is included in the guidelines to the *Secretary of the Interior Standards for Rehabilitation.* Removing paints down to bare wood surfaces using harsh methods can permanently damage those surfaces; therefore such methods are not recommended. Also, total removal obliterates evidence of the historical paints and their sequence and architectural context.

This Brief expands on that advice for the architect, building manager, contractor, or homeowner by identifying and describing common types of paint surface conditions and failures, then recommending appropriate treatments for preparing exterior wood surfaces for repainting to assure the best adhesion and greatest durability of the new paint.

Although the Brief focuses on responsible methods of "paint removal," several paint surface conditions will be described which do not require any paint removal, and still others which can be successfully handled by limited paint removal. In all cases, the information is intended to address the concerns related to exterior wood. It will

also be generally assumed that, because houses built before 1950 involve one or more layers of lead-based paint, the majority of conditions warranting paint removal will mean dealing with this toxic substance along with the dangers of the paint removal tools and chemical strippers themselves.

Purposes of Exterior Paint



The paint on this exterior decorative feature is sound. Photo: NPS files.

Paint applied to exterior wood must withstand yearly extremes of both temperature and humidity. While never expected to be more than a temporary physical shield--requiring reapplication every 5 to 8 years--its importance should not be minimized. Because one of the main causes of wood deterioration is moisture penetration, a primary purpose for painting wood is to exclude such moisture, thereby slowing deterioration not only of a building's exterior siding and decorative features but, ultimately, its underlying structural members. Another important purpose for painting wood is, of course, to define and accent architectural features and to improve appearance.

Treating Paint Problems in Historic Buildings

Exterior paint is constantly deteriorating through the processes of weathering, but in a program of regular maintenance--assuming all other building systems are functioning properly--surfaces can be cleaned, lightly scraped, and hand sanded in preparation for a new finish coat. Unfortunately, these are ideal conditions. More often, complex maintenance problems are inherited by owners of historic buildings, including areas of paint that have failed beyond the point of mere cleaning, scraping, and hand sanding (although much so-called "paint failure" is attributable to interior or exterior moisture problems or surface preparation and application mistakes with previous coats).

When the protective and decorative paint finish was removed and an inappropriate clear finish applied, the exterior character of the building was altered. Photo: NPS files.

Although paint problems are by no means unique to historic buildings, treating multiple layers of hardened, brittle paint on complex, ornamental--and possibly fragile--exterior wood surfaces necessarily requires an extremely cautious approach. In the case of recent construction, this level of concern is not needed because the wood is generally less detailed and, in addition, retention of the sequence of paint layers as a partial record of the building's history is not an issue.

When historic buildings are involved, however, a special set of problems arises--varying in complexity depending upon their age, architectural style, historical importance, and physical soundness of the wood--which must be carefully evaluated so that decisions can be made that are sensitive to the longevity of the resource.

Justification for Paint Removal

At the outset of this Brief, it must be emphasized that removing paint from historic buildings--with the exception of cleaning, light scraping, and hand sanding as part of routine maintenance--should be avoided unless absolutely essential. ***Once conditions warranting removal have been identified the general approach should be to remove paint to the next sound layer using the gentlest means possible, then to repaint.*** Practically speaking as well, paint can adhere just as effectively to existing paint as to bare wood, providing the previous coats of paint are also adhering uniformly and tightly to the wood and the surface is properly prepared for repainting-- cleaned of dirt and chalk and dulled by sanding.

But, if painted exterior wood surfaces display continuous patterns of deep cracks or if they are extensively blistering and peeling so that bare wood is visible, then the old paint should be completely removed before repainting. The only other justification for removing all previous layers of paint is if doors, shutters, or windows have literally been "painted shut," or if new wood is being pieced-in adjacent to old painted wood and a smooth transition is desired.

Paint Removal Precautions

Because paint removal is a difficult and painstaking process, a number of costly, regrettable experiences have occurred--and continue to occur--for both the historic building and the building owner. Historic buildings have been set on fire with blow torches; wood irreversibly scarred by sandblasting or by harsh mechanical devices such as rotary sanders and rotary wire strippers; and layers of historic paint inadvertently and unnecessarily removed. In addition, property owners, using techniques that substitute speed for safety, have been injured by toxic lead vapors or dust from the paint they were trying to remove or by misuse of the paint removers themselves.

Owners of historic properties considering paint removal should also be aware of the amount of time and labor involved. While removing damaged layers of paint from a door or porch railing might be readily accomplished within a reasonable period of time by one or two people, removing paint from larger areas of a building can, without professional assistance, easily become unmanageable and produce less than satisfactory results. The amount of work involved in any paint removal project must therefore be analyzed on a case-by-case basis. Hiring qualified professionals will often be a cost-effective decision due to the expense of materials, the special equipment required, and the amount of time involved. Further, paint removal companies experienced in dealing with the inherent health and safety dangers of paint removal should have purchased such protective devices as are needed to mitigate any dangers and should also be aware of State or local environmental and/or health regulations for hazardous waste disposal.

All in all, paint removal is a messy, expensive, and potentially dangerous aspect of rehabilitating or restoring historic buildings and should not be undertaken without careful thought concerning first, its necessity, and second, which of the available recommended methods is the safest and most appropriate for the job at hand.

Re-painting Historic Buildings for Cosmetic Reasons

If existing exterior paint on wood siding, eaves, window sills, sash, and shutters, doors, and decorative features shows no evidence of paint deterioration such as chalking, blistering, peeling, or cracking, then there is no physical reason to repaint, much less remove paint! Nor is color fading, of itself, sufficient justification to repaint a historic building.

The decision to repaint may not be based altogether on paint failure. Where there is a new owner, or even where ownership has remained constant through the years, taste in colors often changes. Therefore, if repainting is primarily to alter a building's primary and accent colors, a technical factor of paint accumulation should be taken into consideration.

When the paint on the wood windows became too thick, it was removed and the window repainted. Photo: NPS files.

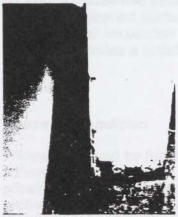
When paint builds up to a thickness of approximately 1/16" (approximately 16 to 30 layers), one or more extra coats of paint may be enough to trigger cracking and peeling in limited or even widespread areas of the building's surface. This results because excessively thick paint is less able to withstand the shrinkage or pull of an additional coat as it dries and is also less able to tolerate thermal stresses. Thick paint invariably fails at the weakest point of adhesion--the oldest layers next to the wood. Cracking and peeling follow. Therefore, if there are no signs of paint failure, it may be somewhat risky to add still another layer of unneeded paint simply for color's sake (extreme changes in color may also require more than one coat to provide proper hiding power and full color). When paint appears to be nearing the critical thickness, a change of accent colors (that is, just to limited portions of the trim) might be an acceptable compromise without chancing cracking and peeling of paint on wooden siding.

If the decision to repaint is nonetheless made, the "new" color or colors should, at a minimum, be appropriate to the style and setting of the building. On the other hand, where the intent is to restore or accurately reproduce the colors originally used or those from a significant period in the building's evolution, they should be based on the results of a paint analysis.

Identification of Exterior Paint Surface Conditions/Recommended Treatments

It is assumed that a preliminary check will already have been made to determine, first, that the painted exterior surfaces are indeed wood--and not stucco, metal, or other wood substitutes--and second, that the wood has not decayed so that repainting would be superfluous. For example, if any area of bare wood such as window sills has been exposed for a long period of time to standing water, wood rot is a strong possibility. Repair or replacement of deteriorated wood should take place before repainting. After these two basic issues have been resolved, the

surface condition identification process may commence.



The problem evidenced here by mossy growth and deteriorated wood must be resolved and the wood allowed to dry out before the wood is repainted. Photo: NPS files.

The historic building will undoubtedly exhibit a variety of exterior paint surface conditions. For example, paint on the wooden siding and doors may be adhering firmly; paint on the eaves peeling; and paint on the porch balusters and window sills cracking and alligatoring. The accurate identification of each paint problem is therefore the first step in planning an appropriate overall solution.

Paint surface conditions can be grouped according to their relative severity: CLASS I conditions include minor blemishes or dirt collection and generally require no paint removal; CLASS II conditions include failure of the top layer or layers of paint and generally require limited paint removal; and CLASS III conditions include substantial or multiple-layer failure and generally require total paint removal. It is precisely because conditions will vary at different points on the building that a careful inspection is critical. Each item of painted exterior woodwork (i.e., siding, doors, windows, eaves, shutters, and decorative elements) should be examined early in the planning phase and surface conditions noted.

CLASS I Exterior Surface Conditions Generally Requiring No Paint Removal

Dirt, Soot, Pollution, Cobwebs, Insect Cocoons, etc.

Cause of Condition

Environmental "grime" or organic matter that tends to cling to painted exterior surfaces and, in particular, protected surfaces such as eaves, do not constitute a paint problem unless painted over rather than removed prior to repainting. If not removed, the surface deposits can be a barrier to proper adhesion and cause peeling.

Recommended Treatment

Most surface matter can be loosened by a strong, direct stream of water from the

nozzle of a garden hose. Stubborn dirt and soot will need to be scrubbed off using l/2 cup of household detergent in a gallon of water with a medium soft bristle brush. The cleaned surface should then be rinsed thoroughly, and permitted to dry before further inspection to determine if repainting is necessary. Quite often, cleaning provides a satisfactory enough result to postpone repainting.

Mildew

Cause of Condition

Mildew is caused by fungi feeding on nutrients contained in the paint film or on dirt adhering to any surface. Because moisture is the single most important factor in its growth, mildew tends to thrive in areas where dampness and lack of sunshine are problems such as window sills, under eaves, around gutters and downspouts, on the north side of buildings, or in shaded areas near shrubbery. It may sometimes be difficult to distinguish mildew from dirt, but there is a simple test to differentiate: if a drop of household bleach is placed on the suspected surface, mildew will immediately turn white whereas dirt will continue to look like dirt.

Recommended Treatment

Because mildew can only exist in shady, warm, moist areas, attention should be given to altering the environment that is conducive to fungal growth. The area in question may be shaded by trees which need to be pruned back to allow sunlight to strike the building; or may lack rain gutters or proper drainage at the base of the building. If the shady or moist conditions can be altered, the mildew is less likely to reappear. A recommend solution for removing mildew consists of one cup non-ammoniated detergent, one quart household bleach, and one gallon water. When the surface is scrubbed with this solution using a medium soft brush, the mildew should disappear; however, for particularly stubborn spots, an additional quart of bleach may be added. After the area is mildew-free, it should then be rinsed with a direct stream of water from the nozzle of a garden hose, and permitted to dry thoroughly. When repainting, specially formulated "mildew-resistant" primer and finish coats should be used.

Excessive Chalking

Cause of Condition

Chalking--or powdering of the paint surface--is caused by the gradual disintegration of the resin in the paint film. (The amount of chalking is determined both by the formulation of the paint and the amount of ultraviolet light to which the paint is exposed.) In moderation, chalking is the ideal way for a paint to "age," because the chalk, when rinsed by rainwater, carries discoloration and dirt away with it and thus provides an ideal surface for repainting. In excess, however, it is not desirable because the chalk can wash down onto a surface of a different color beneath the painted area and cause streaking as well as rapid disintegration of the paint film itself. Also, if a paint contains too much pigment for the amount of binder (as the old white lead carbonate/oil paints often did), excessive chalking can result.

Recommended Treatment

The chalk should be cleaned off with a solution of l/2 cup household detergent to one gallon water, using a medium soft bristle brush. After scrubbing to remove the chalk, the surface should be rinsed with a direct stream of water from the nozzle of a garden hose, allowed to dry thoroughly, (but not long enough for the chalking process to recur) and repainted, using a non-chalking paint.

Staining

Cause of Condition

Staining of paint coatings usually results from excess moisture reacting with materials within the wood substrate. There are two common types of staining, neither of which requires paint removal. The most prevalent type of stain is due to the oxidation or rusting of iron nails or metal (iron, steel, or copper) anchorage devices. A second type of stain is caused by a chemical reaction between moisture and natural extractives in certain woods (red cedar or redwood) which results in a surface deposit of colored matter. This is most apt to occur in new replacement wood within the first 10-15 years.

Recommended Treatment

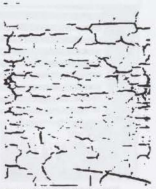
In both cases, the source of the stain should first be located and the moisture problem corrected.

When stains are caused by rusting of the heads of nails used to attach shingles or siding to an exterior wall or by rusting or oxidizing iron, steel, or copper anchorage devices adjacent to a painted surface, the metal objects themselves should be hand sanded and coated with a rust-inhibitive primer followed by two finish coats. (Exposed nail heads should ideally be countersunk, spot primed, and the holes filled with a high quality wood filler except where exposure of the nail head was part of the original construction system or the wood is too fragile to withstand the countersinking procedure.)

Discoloration due to color extractives in replacement wood can usually be cleaned with a solution of equal parts denatured alcohol and water. After the affected area has been rinsed and permitted to dry, a "stainblocking primer" especially developed for preventing this type of stain should be applied (two primer coats are recommended for severe cases of bleeding prior to the finish coat). Each primer coat should be allowed to dry at least 48 hours.

CLASS II Exterior Surface Conditions Generally Requiring Limited Paint Removal

Crazing



Crazing--or surface cracking--is an exterior surface condition which can be successfully treated by sanding and painting. Photo: Courtesy, National Decorating Products Assocation.

Cause of Condition

Crazing--fine, jagged interconnected breaks in the top layer of paint--results when paint that is several layers thick becomes excessively hard and brittle with age and is consequently no longer able to expand and contract with the wood in response to changes in temperature and humidity. As the wood swells, the bond between paint layers is broken and hairline cracks appear. Although somewhat more difficult to detect as opposed to other more obvious paint problems, it is well worth the time to scrutinize all surfaces for crazing. If not corrected, exterior moisture will enter the crazed surface, resulting in further swelling of the wood and, eventually, deep cracking and alligatoring, a Class III condition which requires total paint removal.

Recommended Treatment

Crazing can be treated by hand or mechanically sanding the surface, then repainting. Although the hairline cracks may tend to show through the new paint, the surface will be protected against exterior moisture penetration.

Intercoat Peeling

Cause of Condition

Here, a latex top coat was applied directly over old oil paint, resulting in intercoat peeling. The latex was unable to adhere. If latex is used over oil, an oil-base primer should be applied first. Photo: Mary L. Oehrlein, AIA.

Intercoat peeling can be the result of improper surface preparation prior to the last repainting. This most often occurs in protected areas such as eaves and covered porches because these surfaces do not receive a regular rinsing from rainfall, and salts from airborne pollutants thus accumulate on the surface. If not cleaned off, the new paint coat will not adhere properly and that layer will peel.

Another common cause of intercoat peeling is incompatibility between paint types. For example, if oil paint is applied over latex paint, peeling of the top coat can sometimes result since, upon aging, the oil paint becomes harder and less elastic than the latex paint. If latex paint is applied over old, chalking oil paint, peeling can also occur because the latex paint is unable to penetrate the chalky surface and adhere.

Recommended Treatment

First, where salts or impurities have caused the peeling, the affected area should be washed down thoroughly after scraping, then wiped dry. Finally, the surface should be hand or mechanically sanded, then repainted.

Where peeling was the result of using incompatible paints, the peeling top coat should be scraped and hand or mechanically sanded. Application of a high quality oil type exterior primer will provide a surface over which either an oil or a latex topcoat can be successfully used.

Solvent Blistering

Cause of Condition

Solvent blistering, the result of a less common application error, is not caused by moisture, but by the action of ambient heat on paint solvent or thinners in the paint film. If solventrich paint is applied in direct sunlight, the top surface can dry

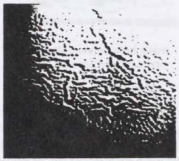
too quickly and, as a result, solvents become trapped beneath the dried paint film. When the solvent vaporizes, it forces its way through the paint film, resulting in surface blisters. This problem occurs more often with dark colored paints because darker colors absorb more heat than lighter ones. To distinguish between solvent blistering and blistering caused by moisture, a blister should be cut open. If another layer of paint is visible, then solvent blistering is likely the problem whereas if bare wood is revealed, moisture is probably to blame. Solvent blisters are generally small.

Recommended Treatment

Solvent-blistered areas can be scraped, hand or mechanically sanded to the next sound layer, then repainted. In order to prevent blistering of painted surfaces, paint should not be applied in direct sunlight.

Wrinkling

Cause of Condition



Wrinkled layers can generally be removed by scraping and sanding as opposed to total paint removal. Photo: Courtesy, National Decorating Products Association.

Another error in application that can easily be avoided is wrinkling. This occurs when the top layer of paint dries before the layer underneath. The top layer of paint actually moves as the paint underneath (a primer, for example) is drying. Specific causes of wrinkling include: (1) applying paint too thick; (2) applying a second coat before the first one dries; (3) inadequate brushing out; and (4) painting in temperatures higher than recommended by the manufacturer.

Recommended Treatment

The wrinkled layer can be removed by scraping followed by hand or mechanical sanding to provide as even a surface as possible, then repainted following manufacturer's application instructions.

CLASS III Exterior Surface Conditions Generally Requiring Total Paint Removal

If surface conditions are such that the majority of paint will have to be removed

prior to repainting, it is suggested that a small sample of intact paint be left in an inconspicuous area either by covering the area with a metal plate, or by marking the area and identifying it in some way. (When repainting does take place, the sample should not be painted over). This will enable future investigators to have a record of the building's paint history.

Peeling

Cause of Condition

Extensively deteriorated paint needs to be removed to bare wood, then primed and re-painted. Photo: NPS files.

Peeling to bare wood is most often caused by excess interior or exterior moisture that collects behind the paint film, thus impairing adhesion. Generally beginning as blisters, cracking and peeling occur as moisture causes the wood to swell, breaking the adhesion of the bottom layer.

Recommended Treatment

There is no sense in repainting before dealing with the moisture problems because new paint will simply fail. Therefore, the first step in treating peeling is to locate and remove the source or sources of the moisture, not only because moisture will jeopardize the protective coating of paint but because, if left unattended, it can ultimately cause permanent damage to the wood. Excess interior moisture should be removed from the building through installation of exhaust fans and vents. Exterior moisture should be eliminated by correcting the following conditions prior to repainting: faulty flashing; leaking gutters; defective roof shingles; cracks and holes in siding and trim; deteriorated caulking in joints and seams; and shrubbery growing too close to painted wood. After the moisture problems have been solved, the wood must be permitted to dry out thoroughly. The damaged paint can then be scraped off with a putty knife, hand or mechanically sanded, primed, and repainted.

Cracking/Alligatoring

Cause of Condition

Cracking and alligatoring are advanced stages of crazing. Once the bond between

layers has been broken due to intercoat paint failure, exterior moisture is able to penetrate the surface cracks, causing the wood to swell and deeper cracking to take place.

This process continues until cracking, which forms parallel to grain, extends to bare wood. Ultimately, the cracking becomes an overall pattern of horizontal and vertical breaks in the paint layers that looks like reptile skin; hence, "alligatoring." In advanced stages of cracking and alligatoring, the surfaces will also flake badly.

Recommended Treatment

If cracking and alligatoring are present only in the top layers they can probably be scraped, hand or mechanically sanded to the next sound layer, then repainted. However, if cracking and/or alligatoring have progressed to bare wood and the paint has begun to flake, it will need to be totally removed. Methods include scraping or paint removal with the electric heat plate, electric heat gun, or chemical strippers, depending on the particular area involved. Bare wood should be primed within 48 hours then repainted.

Selecting the Appropriate/Safest Method to Remove Paint

After having presented the "hierarchy" of exterior paint surface conditions--from a mild condition such as mildewing which simply requires cleaning prior to repainting to serious conditions such as peeling and alligatoring which require total paint removal--one important thought bears repeating: if a paint problem has been identified that warrants either limited or total paint removal, the gentlest method possible for the particular wooden element of the historic building should be selected from the many available methods.

The treatments recommended--based upon field testing as well as onsite monitoring of Department of Interior grant-in-aid and certification of rehabilitation projects--are therefore those which take three overriding issues into consideration (1) the continued protection and preservation of the historic exterior woodwork; (2) the retention of the sequence of historic paint layers; and (3) the health and safety of those individuals performing the paint removal. By applying these criteria, it will be seen that no paint removal method is without its drawbacks and all recommendations are qualified in varying degrees.

Methods for Removing Paint

After a particular exterior paint surface condition has been identified, the next step in planning for repainting--if paint removal is required--is selecting an appropriate method for such removal.

The method or methods selected should be suitable for the specific paint problem as well as the particular wooden element of the building. Methods for paint removal can be divided into three categories (frequently, however, a combination of the three methods is used). Each method is defined below, then discussed further and specific recommendations made:

Abrasive--"Abrading" the painted surface by manual and/or mechanical means such as scraping and sanding. Generally used for surface preparation and limited paint removal.

Thermal--Softening and raising the paint layers by applying heat followed by scraping and sanding. Generally used for total paint removal.

Chemical--Softening of the paint layers with chemical strippers followed by scraping and sanding. Generally used for total paint removal.

Abrasive Methods (Manual)

If conditions have been identified that require limited paint removal such as crazing, intercoat peeling, solvent blistering, and wrinkling, scraping and hand sanding should be the first methods employed before using mechanical means. Even in the case of more serious conditions such as peeling--where the damaged paint is weak and already sufficiently loosened from the wood surface --scraping and hand sanding may be all that is needed prior to repainting.

Recommended Abrasive Methods (Manual)

Putty Knife/Paint Scraper: Scraping is usually accomplished with either a putty knife or a paint scraper, or both. Putty knives range in width from one to six inches and have a beveled edge. A putty knife is used in a pushing motion going under the paint and working from an area of loose paint toward the edge where the paint is still firmly adhered and, in effect,"beveling" the remaining layers so that as smooth a transition as possible is made between damaged and undamaged areas.

Paint scrapers are commonly available in 1-5/16, 2-1/2, and 3-1/2 inch widths and have replaceable blades. In addition, profiled scrapers can be made specifically for use on moldings. As opposed to the putty knife, the paint scraper is used in a pulling motion and works by raking the damaged areas of paint away.

The obvious goal in using the putty knife or the paint scraper is to selectively remove the affected layer or layers of paint; however, both of these tools, particularly the paint scraper with its hooked edge, must be used with care to properly prepare the surface and to avoid gouging the wood.

Sandpaper/Sanding Block/Sanding sponge: After manually removing the damaged layer or layers by scraping, the uneven surface (due to the almost inevitable removal of varying numbers of paint layers in a given area) will need to be smoothed or "feathered out" prior to repainting. As stated before, hand sanding, as opposed to harsher mechanical sanding, is recommended if the area is relatively limited. A coarse grit, open-coat flint sandpaper--the least expensive kind--is useful for this purpose because, as the sandpaper clogs with paint it must be discarded and this process repeated until all layers adhere uniformly.

Blocks made of wood or hard rubber and covered with sandpaper are useful for handsanding flat surfaces. Sanding sponges--rectangular sponges with an abrasive aggregate on their surfaces--are also available for detail work that requires reaching into grooves because the sponge easily conforms to curves and irregular

surfaces. All sanding should be done with the grain.

Summary of Abrasive Methods (Manual)

Recommended: Putty knife, paint scraper, sandpaper, sanding block, sanding sponge.

Applicable areas of building: All areas. For use on: Class I, Class II, and Class III conditions.

Health/Safety factors: Take precautions against lead dust, eye damage; dispose of lead paint residue properly.

Abrasive Methods (Mechanical)

If hand sanding for purposes of surface preparation has not been productive or if the affected area is too large to consider hand sanding by itself, mechanical abrasive methods, i.e., power-operated tools may need to be employed; however, it should be noted that the majority of tools available for paint removal can cause damage to fragile wood and must be used with great care.

Recommended Abrasive Methods (Mechanical)

Orbital sander: Designed as a finishing or smoothing tool--not for the removal of multiple layers of paint--the orbital sander is thus recommended when limited paint removal is required prior to repainting. Because it sands in a small diameter circular motion (some models can also be switched to a back-and-forth vibrating action), this tool is particularly effective for "feathering" areas where paint has first been scraped. The abrasive surface varies from about 3x7 inches to 4x9 inches and sandpaper is attached either by clamps or sliding clips. A medium grit, open-coat aluminum oxide sandpaper should be used; fine sandpaper clogs up so quickly that it is ineffective for smoothing paint.

Belt sander: A second type of power tool--the belt sander--can also be used for removing limited layers of paint but, in this case, the abrasive surface is a continuous belt of sandpaper that travels at high speeds and consequently offers much less control than the orbital sander. Because of the potential for more damage to the paint or the wood, use of the belt sander (also with a medium grit sandpaper) should be limited to flat surfaces and only skilled operators should be permitted to operate it within a historic preservation project.

Not Recommended

Rotary Drill Attachments: Rotary drill attachments such as the rotary sanding disc and the rotary wire stripper should be avoided. The disc sander--usually a disc of sandpaper about 5 inches in diameter secured to a rubber based attachment which is in turn connected to an electric drill or other motorized housing--can easily leave visible circular depressions in the wood which are difficult to hide, even with repainting. The rotary wire stripper--clusters of metals wires similarly attached to an electric drill-type unit--can actually shred a wooden surface and is thus to be used exclusively for removing corrosion and paint from metals.

Waterblasting: Waterblasting above 600 p.s.i. to remove paint is not

recommended because it can force water into the woodwork rather than cleaning loose paint and grime from the surface; at worst, high pressure waterblasting causes the water to penetrate exterior sheathing and damages interior finishes. A detergent solution, a medium soft bristle brush, and a garden hose for purposes of rinsing, is the gentlest method involving water and is recommended when cleaning exterior surfaces prior to repainting.

Sandblasting: Finally--and undoubtedly most vehemently "not recommended"--sandblasting painted exterior woodwork will indeed remove paint, but at the same time can scar wooden elements beyond recognition. As with rotary wire strippers, sandblasting erodes the soft porous fibers (spring wood) faster than the hard, dense fibers (summer wood), leaving a pitted surface with ridges and valleys. Sandblasting will also erode projecting areas of carvings and moldings before it removes paint from concave areas. Hence, this abrasive method is potentially the most damaging of all possibilities, even if a contractor promises that blast pressure can be controlled so that the paint is removed without harming the historic exterior woodwork. (For Additional Information, See Preservation Briefs 6, "Dangers of Abrasive Cleaning to Historic Buildings".)

Summary of Abrasive Methods (Mechanical)

Recommended: Orbital sander, belt sander (skilled operator only).

Applicable areas of building: Flat surfaces, i.e., siding, eaves, doors, window sills.

For use on: Class II and Class III conditions.

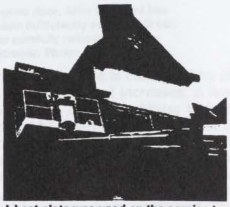
Health/Safety factors: Take precautions against lead dust and eye damage; dispose of lead paint residue properly.

Not Recommended: Rotary drill attachments, high pressure waterblasting, sandblasting.

Thermal Methods

Where exterior surface conditions have been identified that warrant total paint removal such as peeling, cracking, or alligatoring, two thermal devices--the electric heat plate and the electric heat gun--have proven to be quite successful for use on different wooden elements of the historic building. One thermal method--the blow torch--is not recommended because it can scorch the wood or even burn the building down!

Recommended Thermal Methods



A heat plate was used on the cornice to remove paint. Photo: NPS files.

Electric heat plate: The electric heat plate operates between 500 and 800 degrees Fahrenheit (not hot enough to vaporize lead paint), using about 15 amps of power. The plate is held close to the painted exterior surface until the layers of paint begin to soften and blister, then moved to an adjacent location on the wood while the softened paint is scraped off with a putty knife (it should be noted that the heat plate is most successful when the paint is very thick!). With practice, the operator can successfully move the heat plate evenly across a flat surface such as wooden siding or a window sill or door in a continuous motion, thus lessening the risk of scorching the wood in an attempt to reheat the edge of the paint sufficiently for effective removal. Since the electric heat plate's coil is "red hot," extreme caution should be taken to avoid igniting clothing or burning the skin. If an extension cord is used, it should be a heavy-duty cord (with 3-prong grounded plugs). A heat plate could overload a circuit or, even worse, cause an electrical fire; therefore, it is recommended that this implement be used with a single circuit and that a fire extinguisher always be kept close at hand.

Electric heat gun: The electric heat gun (electric hot-air gun) looks like a hand-held hairdryer with a heavy-duty metal case. It has an electrical resistance coil that typically heats between 500 and 750 degrees Fahrenheit and, again, uses about 15 amps of power which requires a heavy-duty extension cord. There are some heat guns that operate at higher temperatures but they should not be purchased for removing old paint because of the danger of lead paint vapors.

The nozzle on the electric heat gun permits hot air to be aimed into cavities on solid decorative surfaces, such as this carriage

house door. After the paint has been sufficiently softened, it can be carefully removed with a scraper. Photo: NPS files.

The temperature is controlled by a vent on the side of the heat gun. When the vent is closed, the heat increases. A fan forces a stream of hot air against the painted woodwork, causing a blister to form. At that point, the softened paint can be peeled back with a putty knife. It can be used to best advantage when a paneled door was originally varnished, then painted a number of times. In this case, the paint will come off quite easily, often leaving an almost pristine varnished surface behind. Like the heat plate, the heat gun works best on a heavy paint buildup. (It is, however, not very successful on only one or two layers of paint or on surfaces that have only been varnished. The varnish simply becomes sticky and the wood scorches.)

Although the heat gun is heavier and more tiring to use than the heat plate, it is particularly effective for removing paint from detail work because the nozzle can be directed at curved and intricate surfaces. Its use is thus more limited than the heat plate, and most successfully used in conjunction with the heat plate. For example, it takes about two to three hours to strip a paneled door with a heat gun, but if used in combination with a heat plate for the large, flat area, the time can usually be cut in half. Although a heat gun seldom scorches wood, it can cause fires (like the blow torch) if aimed at the dusty cavity between the exterior sheathing and siding and interior lath and plaster. A fire may smolder for hours before flames break through to the surface. Therefore, this thermal device is best suited for use on solid decorative elements, such as molding, balusters, fretwork, or "gingerbread."

Not Recommended

Blow Torch: Blow torches, such as hand-held propane or butane torches, were widely used in the past for paint removal because other thermal devices were not available. With this technique, the flame is directed toward the paint until it begins to bubble and loosen from the surface. Then the paint is scraped off with a putty knife. Although this is a relatively fast process, at temperatures between 3200 and 3800 degrees Fahrenheit the open flame is not only capable of burning a careless operator and causing severe damage to eyes or skin, it can easily scorch or ignite the wood. The other fire hazard is more insidious. Most frame buildings have an air space between the exterior sheathing and siding and interior lath and plaster. This cavity usually has an accumulation of dust which is also easily ignited by the open flame of a blow torch. Finally, leadbase paints will vaporize at high temperatures, releasing toxic fumes that can be unknowingly inhaled. Therefore, because both the heat plate and the heat gun are generally safer to use--that is, the risks are much more controllable--the blow torch should definitely be avoided!

Summary of Thermal Methods

Recommended: Electric heat plate, electric heat gun.

Applicable areas of building: Electric heat plate--flat surfaces such as siding, eaves, sash, sills, doors. Electric heat gun--solid decorative molding, balusters, fretwork, or "gingerbread."

For use on: Class III conditions.

Health/Safety factors: Take precautions against eye damage and fire. Dispose of lead paint residue properly.

Not Recommended: Blow torch.

Chemical Methods

With the availability of effective thermal methods for total paint removal, the need for chemical methods--in the context of preparing historic exterior woodwork for repainting--becomes quite limited. Solvent-base or caustic strippers may, however, play a supplemental role in a number of situations, including:

- Removing paint residue from intricate decorative features, or in cracks or hard to reach areas if a heat gun has not been completely effective;
- Removing paint on window muntins because heat devices can easily break the glass;
- Removing varnish on exterior doors after all layers of paint have been removed by a heat plate/heat gun if the original varnish finish is being restored;
- Removing paint from detachable wooden elements such as exterior shutters, balusters, columns, and doors by dip stripping when other methods are too laborious.

Recommended Chemical Methods

(Use With Extreme Caution)

Because all chemical paint removers can involve potential health and safety hazards, no wholehearted recommendations can be made from that standpoint. Commonly known as "paint removers" or "strippers," both solvent-base or caustic products are commercially available that, when poured, brushed, or sprayed on painted exterior woodwork are capable of softening several layers of paint at a time so that the resulting "sludge"--which should be remembered is nothing less than the sequence of historic paint layers--can be removed with a putty knife. Detachable wood elements such as exterior shutters can also be "dip-stripped."

Solvent-base Strippers: The formulas tend to vary, but generally consist of combinations of organic solvents such as methylene chloride, isopropanol, toluol, xylol, and methanol; thickeners such as methyl cellulose; and various additives such as paraffin wax used to prevent the volatile solvents from evaporating before they have time to soak through multiple layers of paint. Thus, while some solvent-base strippers are quite thin and therefore unsuitable for use on vertical surfaces, others, called "semi-paste" strippers, are formulated for use on vertical surfaces or the underside of horizontal surfaces.

However, whether liquid or semi-paste, there are two important points to stress

when using any solvent-base stripper: First, the vapors from the organic chemicals can be highly toxic if inhaled; skin contact is equally dangerous because the solvents can be absorbed; second, many solvent-base strippers are flammable. Even though application out-of-doors may somewhat mitigate health and safety hazards, a respirator with special filters for organic solvents is recommended and, of course, solvent-base strippers should never be used around open flames, lighted cigarettes, or with steel wool around electrical outlets.

Although appearing to be the simplest for exterior use, a particular type of solvent-base stripper needs to be mentioned here because it can actually cause the most problems. Known as "water-rinsable," such products have a high proportion of methylene chloride together with emulsifiers. Although the dissolved paint can be rinsed off with water with a minimum of scraping, this ultimately creates more of a problem in cleaning up and properly disposing of the sludge. In addition, these strippers can leave a gummy residue on the wood that requires removal with solvents. Finally, water-rinsable strippers tend to raise the grain of the wood more than regular strippers.

On balance, then, the regular strippers would seem to work just as well for exterior purposes and are perhaps even better from the standpoint of proper lead sludge disposal because they must be hand 'scraped as opposed to rinsed off (a coffee-can with a wire stretched across the top is one effective way to collect the sludge; when the putty knife is run across the wire, the sludge simply falls into the can. Then, when the can is filled, the wire is removed, the can capped, and the lead paint sludge disposed of according to local health regulations).

Caustic strippers: Until the advent of solvent-base strippers, caustic strippers were used exclusively when a chemical method was deemed appropriate for total paint removal prior to repainting or refinishing. Now, it is more difficult to find commercially prepared caustic solutions in hardware and paint stores for homeowner use with the exception of lye (caustic soda) because solvent-base strippers packaged in small quantities tend to dominate the market.

Most commercial dip stripping companies, however, continue to use variations of the caustic bath process because it is still the cheapest method available for removing paint. Generally, dip stripping should be left to professional companies because caustic solutions can dissolve skin and permanently damage eyes as well as present serious disposal problems in large quantities.

If exterior shutters or other detachable elements are being sent out for stripping in a caustic solution, it is wise to see samples of the company's finished work. While some companies do a first-rate job, others can leave a residue of paint in carvings and grooves. Wooden elements may also be soaked too long so that the wood grain is raised and roughened, requiring extensive hand sanding later. In addition, assurances should be given by these companies that caustic paint removers will be neutralized with a mild acid solution or at least thoroughly rinsed with water after dipping (a caustic residue makes the wood feel slippery). If this is not done, the lye residue will cause new paint to fail.

Summary of Chemical Methods

Recommended, with extreme caution: Solvent-base strippers, caustic strippers.

Applicable areas of buildings: decorative features, window muntins, doors, exterior shutters, columns, balusters, and railings.

For use on: Class III Conditions.

Health/Safety factors: Take precautions against inhaling toxic vapors; fire; eye damage; and chemical poisoning from skin contact. Dispose of lead residue properly

General Paint Type Recommendations

Decorative features were painted with a traditional oil-based paint as a part of the rehabilitation. Photo: NPS files.

Based on the assumption that the exterior wood has been painted with oil paint many times in the past and the existing top coat is therefore also an oil paint, it is recommended that for CLASS I and CLASS II paint surface conditions, a top coat of high quality oil paint be applied when repainting. The reason for recommending oil rather than latex paints is that a coat of latex paint applied directly over old oil paint is more apt to fail. The considerations are twofold. First, because oil paints continue to harden with age, the old surface is sensitive to the added stress of shrinkage which occurs as a new coat of paint dries. Oil paints shrink less upon drying than latex paints and thus do not have as great a tendency to pull the old paint loose. Second, when exterior oil paints age, the binder releases pigment particles, causing a chalky surface. Although for best results, the chalk (or dirt, etc.) should always be cleaned off prior to repainting, a coat of new oil paint is more able to penetrate a chalky residue and adhere than is latex paint. Therefore, unless it is possible to thoroughly clean a heavily chalked surface, oil paints--on balance--give better adhesion.

If however, a latex top coat is going to be applied over several layers of old oil paint, an oil primer should be applied first (the oil primer creates a flat, porous surface to which the latex can adhere). After the primer has thoroughly dried, a latex top coat may be applied. In the long run, changing paint types is more time consuming and expensive. An application of a new oil-type top coat on the old oil paint is, thus, the preferred course of action.

If CLASS III conditions have necessitated total paint removal, there are two options, both of which assure protection of the exterior wood: (1) an oil primer may be applied followed by an oil-type top coat, preferably by the same manufacturer; or (2) an oil primer may be applied followed by a latex top coat, again using the same brand of paint. It should also be noted that primers were never intended to withstand the effects of weathering; therefore, the top coat should be applied as soon as possible after the primer has dried.

CONCLUSION

The recommendations outlined in this Brief are cautious because at present there is no completely safe and effective method of removing old paint from exterior woodwork. This has necessarily eliminated descriptions of several methods still in a developmental or experimental stage, which can therefore neither be recommended nor precluded from future recommendation. With the ever-increasing number of buildings being rehabilitated, however, paint removal technology should be stimulated and, in consequence, existing methods refined and new methods developed which will respect both the historic wood and the health and safety of the operator.

Reading List

Batcheler, Penelope Hartshorne, "Paint Color Research and Restoration." *Technical Leaflet 15.* Nashville: American Association for State and Local History (undated).

"Danger: Restoration May Be Hazardous to Your Health." *The Old House Journal.* Vol. 4, No. 5 (May 1976), pp. 911.

Gola, Edward F. "Avoiding Mistakes in Exterior Painting." *The Old House Journal.* Vol. 4, No. 6 (June 1976), pp. 1, 45.

"How to Assure a Satisfactory Paint Job." *Scientific Section: Circular 784.* Washington, DC: National Paint, Varnish and Lacquer Association (undated).

Labine, Clem. "Selecting the Best Exterior Paint." The *Old House Journal.* Vol. 4, No. 7 (July 1976), pp. 1, 1011.

Morton, W. Brown III and Hume, Gary L. *The Secretary of the Interior's Standards for Historic Preservation Projects with Guidelines for Applying the Standards.* Washington, DC: Department of Interior, 1979.

Paint Problem Solver. St. Louis: National Decorating Products Association, 1980.

"Special Issue: Exterior Painting." *The Old House Journal.* Vol. 4, No. 4 (April 1981), pp. 7194.

Thorsen, John W. "Hazardous Waste: What is it? How to Handle it." *Professional*

Decorating & Coating Action. Vol. 43, No. 4 (September 1981), pp. 45.

Acknowledgements

Special thanks go to Baird M. Smith, AIA (formerly Chief, Preservation Technology Branch, TPS) for providing general direction in the development of the manuscript. In addition, the following individuals are to be thanked for their contributions as technical experts in the field: Royal T. Brown, National Paint and Coatings Association, Washington, D.C.; Dr. Judith E. Selwyn, Preservation Technology Associates, Boston, Massachusetts; and Dennis R. Vacca, Pratt & Lambert Co., Carlstadt, New Jersey. Finally, thanks go to several National Park Service staff members whose valuable comments were incorporated into the text and who contributed to the production of the brief: James A. Caufield, Anne E. Grimmer, Jean E. Travers, David G. Battle, Sharon C. Park, AIA, Charles E. Fisher III, Sara K. Blumenthal, and Martha A. Gutrick. The peeling paint photo used as the logo is provided, courtesy, John Leeke, Preservation Consultant, 2001, and is copyrighted.

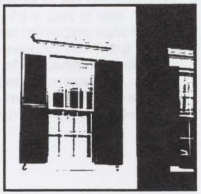
Washington, D.C. September, 1982

Home page logo: Peeling paint on historic wood siding. Photo: ©John Leeke, 2002.

This publication has been prepared pursuant to the National Historic Preservation Act of 1966, as amended, which directs the Secretary of the Interior to develop and make available information concerning historic properties. Technical Preservation Services (TPS), Heritage Preservation Services Division, National Park Service prepares standards, guidelines, and other educational materials on responsible historic preservation treatments for a broad public.

9 **Preservation Briefs**
Technical Preservation Services
HPS
National Park Service

The Repair of Historic Wooden Windows



John H. Myers

A NOTE TO OUR USERS: The web versions of the **Preservation Briefs** differ somewhat from the printed versions. Many illustrations are new, captions are simplified, illustrations are typically in color rather than black and white, and some complex charts have been omitted.

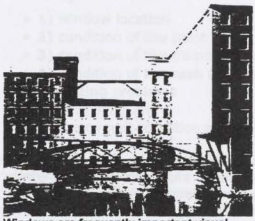
The windows on many historic buildings are an important aspect of the architectural character of those buildings. Their design, craftsmanship, or other qualities may make them worthy of preservation. This is self-evident for ornamental windows, but it can be equally true for warehouses or factories where the windows may be the most dominant visual element of an otherwise plain building. Evaluating the significance of these windows and planning for their repair or replacement can be a complex process involving both objective and subjective considerations. *The Secretary of the Interior's Standards for Rehabilitation* and the accompanying guidelines, call for respecting the significance of original materials and features, repairing and retaining them wherever possible, and when necessary, replacing them in kind. This Brief is based on the issues of significance and repair which are implicit in the standards, but the primary emphasis is on the technical issues of planning for the repair of windows including evaluation of their physical condition, techniques of repair, and design considerations when replacement is necessary.

Much of the technical section presents repair techniques as an instructional guide for the do-it-yourselfer. The information will be useful, however, for the architect, contractor, or developer on large-scale projects. It presents a methodology for approaching the evaluation and repair of existing windows, and considerations for

replacement, from which the professional can develop alternatives and specify appropriate materials and procedures.

Architectural or Historical Significance

Evaluating the architectural or historical significance of windows is the first step in planning for window treatments, and a general understanding of the function and history of windows is vital to making a proper evaluation. As a part of this evaluation, one must consider four basic window functions: admitting light to the interior spaces, providing fresh air and ventilation to the interior, providing a visual link to the outside world, and enhancing the appearance of a building. No single factor can be disregarded when planning window treatments; for example, attempting to conserve energy by closing up or reducing the size of window openings may result in the use of *more* energy by increasing electric lighting loads and decreasing passive solar heat gains.



Windows are frequently important visual focal points, especially on simple facades such as this mill building. Replacement of the multi-pane windows with larger panes could dramatically alter the appearance of the building. Photo: NPS files.

Historically, the first windows in early American houses were casement windows; that is, they were hinged at the side and opened outward. In the beginning of the eighteenth century single- and double-hung windows were introduced. Subsequently many styles of these vertical sliding sash windows have come to be associated with specific building periods or architectural styles, and this is an important consideration in determining the significance of windows, especially on a local or regional basis. Site-specific, regionally oriented architectural comparisons should be made to determine the significance of windows in question. Although such comparisons may focus on specific window types and their details, the ultimate determination of significance should be made within the context of the whole building, wherein the windows are one architectural element.

After all of the factors have been evaluated, **windows should be considered significant to a building if they: 1)** are original, **2)** reflect the original design intent for the building, **3)** reflect period or regional styles or building practices, **4)**

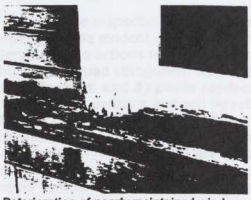
reflect changes to the building resulting from major periods or events, or **5)** are examples of exceptional craftsmanship or design. Once this evaluation of significance has been completed, it is possible to proceed with planning appropriate treatments, beginning with an investigation of the physical condition of the windows.

Physical Evaluation

The key to successful planning for window treatments is a careful evaluation of existing physical conditions on a unit-by-unit basis. A graphic or photographic system may be devised to record existing conditions and illustrate the scope of any necessary repairs. Another effective tool is a window schedule which lists all of the parts of each window unit. Spaces by each part allow notes on existing conditions and repair instructions. When such a schedule is completed, it indicates the precise tasks to be performed in the repair of each unit and becomes a part of the specifications. In any evaluation, one should note at a minimum:

- **1)** window location
- **2)** condition of the paint
- **3)** condition of the frame and sill
- **4)** condition of the sash (rails, stiles and muntins)
- **5)** glazing problems
- **6)** hardware, and
- **7)** the overall condition of the window (excellent, fair, poor, and so forth)

Many factors such as poor design, moisture, vandalism, insect attack, and lack of maintenance can contribute to window deterioration, but moisture is the primary contributing factor in wooden window decay. All window units should be inspected to see if water is entering around the edges of the frame and, if so, the joints or seams should be caulked to eliminate this danger. The glazing putty should be checked for cracked, loose, or missing sections which allow water to saturate the wood, especially at the joints. The back putty on the interior side of the pane should also be inspected, because it creates a seal which prevents condensation from running down into the joinery. The sill should be examined to insure that it slopes downward away from the building and allows water to drain off. In addition, it may be advisable to cut a dripline along the underside of the sill. This almost invisible treatment will insure proper water runoff, particularly if the bottom of the sill is flat. Any conditions, including poor original design, which permit water to come in contact with the wood or to puddle on the sill must be corrected as they contribute to deterioration of the window.



Deterioration of poorly maintained windows usually begins on horizontal surfaces and at joints, where water can collect and saturate the wood. Photo: NPS files.

One clue to the location of areas of excessive moisture is the condition of the paint; therefore, each window should be examined for areas of paint failure. Since excessive moisture is detrimental to the paint bond, areas of paint blistering, cracking, flaking, and peeling usually identify points of water penetration, moisture saturation, and potential deterioration. Failure of the paint should not, however, be mistakenly interpreted as a sign that the wood is in poor condition and hence, irreparable. Wood is frequently in sound physical condition beneath unsightly paint. After noting areas of paint failure, the next step is to inspect the condition of the wood, particularly at the points identified during the paint examination.

Each window should be examined for operational soundness beginning with the lower portions of the frame and sash. Exterior rainwater and interior condensation can flow downward along the window, entering and collecting at points where the flow is blocked. The sill, joints between the sill and jamb, corners of the bottom rails and muntin joints are typical points where water collects and deterioration begins. The operation of the window (continuous opening and closing over the years and seasonal temperature changes) weakens the joints, causing movement and slight separation. This process makes the joints more vulnerable to water which is readily absorbed into the endgrain of the wood. If severe deterioration exists in these areas, it will usually be apparent on visual inspection, but other less severely deteriorated areas of the wood may be tested by two traditional methods using a small ice pick.

An ice pick or an awl may be used to test wood for soundness. The technique is simply to jab the pick into a wetted wood surface at an angle and pry up a small section of the wood. Sound wood will separate in long fibrous splinters, but decayed wood will lift up in short irregular pieces due to the breakdown of fiber strength.

Another method of testing for soundness consists of pushing a sharp object into the wood, perpendicular to the surface. If deterioration has begun from the hidden side of a member and the core is badly decayed, the visible surface may appear to be sound wood. Pressure on the probe can force it through an apparently sound skin to penetrate deeply into decayed wood. This technique is especially useful for checking sills where visual access to the underside is restricted.

Following the inspection and analysis of the results, the scope of the necessary repairs will be evident and a plan for the rehabilitation can be formulated. Generally the actions necessary to return a window to "like new" condition will fall into three broad categories: ***1) routine maintenance procedures, 2) structural stabilization***, and ***3) parts replacement***. These categories will be discussed in the following sections and will be referred to respectively as **Repair Class I**, **Repair Class II**, and **Repair Class III.** Each successive repair class represents an increasing level of difficulty, expense, and work time. Note that most of the points mentioned in Repair Class I are routine maintenance items and should be provided in a regular maintenance program for any building. The neglect of these routine items can contribute to many common window problems.

Before undertaking any of the repairs mentioned in the following sections all sources of moisture penetration should be identified and eliminated, and all existing decay fungi destroyed in order to arrest the deterioration process. Many commercially available fungicides and wood preservatives are toxic, so it is extremely important to follow the manufacturer's recommendations for application, and store all chemical materials away from children and animals. After fungicidal and preservative treatment the windows may be stabilized, retained, and restored with every expectation for a long service life.

Repair Class I: Routine Maintenance

This historic double-hung window has many layers of paint, some cracked and missing putty, slight separation at the joints, broken sash cords, and one cracked pane. Photo: NPS files.

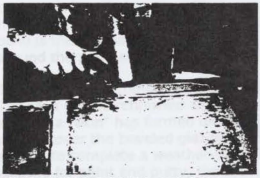
Repairs to wooden windows are usually labor intensive and relatively uncomplicated. On small scale projects this allows the do-it-yourselfer to save money by repairing all or part of the windows. On larger projects it presents the opportunity for time and money which might otherwise be spent on the removal and replacement of existing windows, to be spent on repairs, subsequently saving all or part of the material cost of new window units. Regardless of the actual costs, or who performs the work, the evaluation process described earlier will provide the

knowledge from which to specify an appropriate work program, establish the work element priorities, and identify the level of skill needed by the labor force.

After removing paint from the seam between the interior stop and the jamb, the stop can be pried out and gradually worked loose using a pair of putty knives as shown. Photo: NPS files.

The routine maintenance required to upgrade a window to "like new" condition normally includes the following steps: 1) some degree of interior and exterior paint removal, 2) removal and repair of sash (including reglazing where necessary), 3) repairs to the frame, 4) weatherstripping and reinstallation of the sash, and 5) repainting. These operations are illustrated for a typical double-hung wooden window, but they may be adapted to other window types and styles as applicable.

Historic windows have usually acquired many layers of paint over time. Removal of excess layers or peeling and flaking paint will facilitate operation of the window and restore the clarity of the original detailing. Some degree of paint removal is also necessary as a first step in the proper surface preparation for subsequent refinishing (if paint color analysis is desired, it should be conducted prior to the onset of the paint removal). There are several safe and effective techniques for removing paint from wood, depending on the amount of paint to be removed.



Sash can be removed and repaired in a convenient work area. Paint is being removed from this sash with a hot air gun. Photo: NPS files.

Paint removal should begin on the interior frames, being careful to remove the paint from the interior stop and the parting bead, particularly along the seam where these stops meet the jamb. This can be accomplished by running a utility knife along the length of the seam, breaking the paint bond. It will then be much easier to remove the stop, the parting bead and the sash. The interior stop may be initially loosened from the sash side to avoid visible scarring of the wood and then gradually pried loose using a pair of putty knives, working up and down the stop in small increments. With the stop removed, the lower or interior sash may be withdrawn. The sash cords should be detached from the sides of the sash and their ends may be pinned with a nail or tied in a knot to prevent them from falling into the weight pocket.

Removal of the upper sash on double-hung units is similar but the parting bead which holds it in place is set into a groove in the center of the stile and is thinner and more delicate than the interior stop. After removing any paint along the seam, the parting bead should be carefully pried out and worked free in the same manner as the interior stop. The upper sash can be removed in the same manner as the lower one and both sash taken to a convenient work area (in order to remove the sash the interior stop and parting bead need only be removed from one side of the window). Window openings can be covered with polyethylene sheets or plywood sheathing while the sash are out for repair.

The sash can be stripped of paint using appropriate techniques, but if any heat treatment is used, the glass should be removed or protected from the sudden temperature change which can cause breakage. An overlay of aluminum foil on gypsum board or asbestos can protect the glass from such rapid temperature change. It is important to protect the glass because it may be historic and often adds character to the window. Deteriorated putty should be removed manually, taking care not to damage the wood along the rabbet. If the glass is to be removed, the glazing points which hold the glass in place can be extracted and the panes numbered and removed for cleaning and reuse in the same openings. With the glass panes out, the remaining putty can be removed and the sash can be sanded, patched, and primed with a preservative primer. Hardened putty in the rabbets may be softened by heating with a soldering iron at the point of removal. Putty remaining on the glass may be softened by soaking the panes in linseed oil, and then removed with less risk of breaking the glass. Before reinstalling the glass, a bead of glazing compound or linseed oil putty should be laid around the rabbet to cushion and seal the glass. Glazing compound should only be used on wood which has been brushed with linseed oil and primed with an oil based primer or paint. The pane is then pressed into place and the glazing points are pushed into the wood around the perimeter of the pane.

The final glazing compound or putty is applied and beveled to complete the seal. The sash can be refinished as desired on the inside and painted on the outside as soon as a "skin" has formed on the putty, usually in 2 or 3 days. Exterior paint should cover the beveled glazing compound or putty and lap over onto the glass slightly to complete a weather-tight seal. After the proper curing times have elapsed for paint and putty, the sash will be ready for reinstallation.

While the sash are out of the frame, the condition of the wood in the jamb and sill can be evaluated. Repair and refinishing of the frame may proceed concurrently with repairs to the sash, taking advantage of the curing times for the paints and

putty used on the sash. One of the most common work items is the replacement of the sash cords with new rope cords or with chains. The weight pocket is frequently accessible through a door on the face of the frame near the sill, but if no door exists, the trim on the interior face may be removed for access. Sash weights may be increased for easier window operation by elderly or handicapped persons. Additional repairs to the frame and sash may include consolidation or replacement of deteriorated wood. Techniques for these repairs are discussed in the following sections.

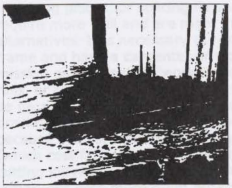
Following the relatively simple repairs, the window is weathertight, like new in appearance, and serviceable for many years to come.Photo: NPS files.

The operations just discussed summarize the efforts necessary to restore a window with minor deterioration to "like new" condition. The techniques can be applied by an unskilled person with minimal training and experience. To demonstrate the practicality of this approach, and photograph it, a Technical Preservation Services staff member repaired a wooden double-hung, two over two window which had been in service over ninety years. The wood was structurally sound but the window had one broken pane, many layers of paint, broken sash cords and inadequate, worn-out weatherstripping. The staff member found that the frame could be stripped of paint and the sash removed quite easily. Paint, putty and glass removal required about one hour for each sash, and the reglazing of both sash was accomplished in about one hour. Weatherstripping of the sash and frame, replacement of the sash cords and reinstallation of the sash, parting bead, and stop required an hour and a half. These times refer only to individual operations; the entire process took several days due to the drying and curing times for putty, primer, and paint, however, work on other window units could have been in progress during these lag times.

Repair Class II: Stabilization

The preceding description of a window repair job focused on a unit which was operationally sound. Many windows will show some additional degree of physical deterioration, especially in the vulnerable areas mentioned earlier, but even badly damaged windows can be repaired using simple processes. Partially decayed wood can be waterproofed, patched, built-up, or consolidated and then painted to achieve a sound condition, good appearance, and greatly extended life. Three techniques for repairing partially decayed or weathered wood are discussed in this section, and all three can be accomplished using products available at most hardware stores.

One established technique for repairing wood which is split, checked or shows signs of rot, is to: **1)** dry the wood, **2)** treat decayed areas with a fungicide, **3)** waterproof with two or three applications of boiled linseed oil (applications every 24 hours), **4)** fill cracks and holes with putty, and **5)** after a "skin" forms on the putty, paint the surface. Care should be taken with the use of fungicide which is toxic. Follow the manufacturers' directions and use only on areas which will be painted. When using any technique of building up or patching a flat surface, the finished surface should be sloped slightly to carry water away from the window and not allow it to puddle. Caulking of the joints between the sill and the jamb will help reduce further water penetration.



This illustrates a two-part expoxy patching compound used to fill the surface of a weathered sill and rebuild the missing edge. When the epoxy cures, it can be sanded smooth and painted to achieve a durable and waterproof repair. Photo: NPS files.

When sills or other members exhibit surface weathering they may also be built-up using wood putties or homemade mixtures such as sawdust and resorcinol glue, or whiting and varnish. These mixtures can be built up in successive layers, then sanded, primed, and painted. The same caution about proper slope for flat surfaces applies to this technique.

Wood may also be strengthened and stabilized by consolidation, using semirigid epoxies which saturate the porous decayed wood and then harden. The surface of the consolidated wood can then be filled with a semirigid epoxy patching compound, sanded and painted. Epoxy patching compounds can be used to build up missing sections or decayed ends of members. Profiles can be duplicated using hand molds, which are created by pressing a ball of patching compound over a

sound section of the profile which has been rubbed with butcher's wax. This can be a very efficient technique where there are many typical repairs to be done. The process has been widely used and proven in marine applications; and proprietary products are available at hardware and marine supply stores. Although epoxy materials may be comparatively expensive, they hold the promise of being among the most durable and long lasting materials available for wood repair. More information on epoxies can be found in the publication "Epoxies for Wood Repairs in Historic Buildings," cited in the bibliography.

Any of the three techniques discussed can stabilize and restore the appearance of the window unit. There are times, however, when the degree of deterioration is so advanced that stabilization is impractical, and the only way to retain some of the original fabric is to replace damaged parts.

Repair Class III: Splices and Parts Replacement

When parts of the frame or sash are so badly deteriorated that they cannot be stabilized there are methods which permit the retention of some of the existing or original fabric. These methods involve replacing the deteriorated parts with new matching pieces, or splicing new wood into existing members. The techniques require more skill and are more expensive than any of the previously discussed alternatives. It is necessary to remove the sash and/or the affected parts of the frame and have a carpenter or woodworking mill reproduce the damaged or missing parts. Most millwork firms can duplicate parts, such as muntins, bottom rails, or sills, which can then be incorporated into the existing window, but it may be necessary to shop around because there are several factors controlling the practicality of this approach. Some woodworking mills do not like to repair old sash because nails or other foreign objects in the sash can damage expensive knives (which cost far more than their profits on small repair jobs); others do not have cutting knives to duplicate muntin profiles. Some firms prefer to concentrate on larger jobs with more profit potential, and some may not have a craftsman who can duplicate the parts. A little searching should locate a firm which will do the job, and at a reasonable price. If such a firm does not exist locally, there are firms which undertake this kind of repair and ship nationwide. It is possible, however, for the advanced do-it-yourselfer or craftsman with a table saw to duplicate moulding profiles using techniques discussed by Gordie Whittington in "Simplified Methods for Reproducing Wood Mouldings," *Bulletin* of the Association for Preservation Technology, Vol. III, No. 4, 1971, or illustrated more recently in *The Old House*, Time-Life Books, Alexandria, Virginia, 1979.

The repairs discussed in this section involve window frames which may be in very deteriorated condition, possibly requiring removal; therefore, caution is in order. The actual construction of wooden window frames and sash is not complicated. Pegged mortise and tenon units can be disassembled easily, if the units are out of the building. The installation or connection of some frames to the surrounding structure, especially masonry walls, can complicate the work immeasurably, and may even require dismantling of the wall. It may be useful, therefore, to take the following approach to frame repair: **1)** conduct regular maintenance of sound frames to achieve the longest life possible, **2)** make necessary repairs in place, wherever possible, using stabilization and splicing techniques, and **3)** if removal is

necessary, thoroughly investigate the structural detailing and seek appropriate professional consultation.

Another alternative may be considered if parts replacement is required, and that is sash replacement. If extensive replacement of parts is necessary and the job becomes prohibitively expensive it may be more practical to purchase new sash which can be installed into the existing frames. Such sash are available as exact custom reproductions, reasonable facsimiles (custom windows with similar profiles), and contemporary wooden sash which are similar in appearance. There are companies which still manufacture high quality wooden sash which would duplicate most historic sash. A few calls to local building suppliers may provide a source of appropriate replacement sash, but if not, check with local historical associations, the state historic preservation office, or preservation related magazines and supply catalogs for information.

If a rehabilitation project has a large number of windows such as a commercial building or an industrial complex, there may be less of a problem arriving at a solution. Once the evaluation of the windows is completed and the scope of the work is known, there may be a potential economy of scale. Woodworking mills may be interested in the work from a large project; new sash in volume may be considerably less expensive per unit; crews can be assembled and trained on site to perform all of the window repairs; and a few extensive repairs can be absorbed (without undue burden) into the total budget for a large number of sound windows. While it may be expensive for the average historic home owner to pay seventy dollars or more for a mill to grind a custom knife to duplicate four or five bad muntins, that cost becomes negligible on large commercial projects which may have several hundred windows.

Most windows should not require the extensive repairs discussed in this section. The ones which do are usually in buildings which have been abandoned for long periods or have totally lacked maintenance for years. It is necessary to thoroughly investigate the alternatives for windows which do require extensive repairs to arrive at a solution which retains historic significance and is also economically feasible. Even for projects requiring repairs identified in this section, if the percentage of parts replacement per window is low, or the number of windows requiring repair is small, repair can still be a cost effective solution.

Weatherization

A window which is repaired should be made as energy efficient as possible by the use of appropriate weatherstripping to reduce air infiltration. A wide variety of products are available to assist in this task. Felt may be fastened to the top, bottom, and meeting rails, but may have the disadvantage of absorbing and holding moisture, particularly at the bottom rail. Rolled vinyl strips may also be tacked into place in appropriate locations to reduce infiltration. Metal strips or new plastic spring strips may be used on the rails and, if space permits, in the channels between the sash and jamb. Weatherstripping is a historic treatment, but old weatherstripping (felt) is not likely to perform very satisfactorily. Appropriate contemporary weatherstripping should be considered an integral part of the repair process for windows. The use of sash locks installed on the meeting rail will insure

that the sash are kept tightly closed so that the weatherstripping will function more effectively to reduce infiltration. Although such locks will not always be historically accurate, they will usually be viewed as an acceptable contemporary modification in the interest of improved thermal performance.

Many styles of storm windows are available to improve the thermal performance of existing windows. The use of exterior storm windows should be investigated whenever feasible because they are thermally efficient, cost-effective, reversible, and allow the retention of original windows (see "Preservation Briefs: 3"). Storm window frames may be made of wood, aluminum, vinyl, or plastic; however, the use of unfinished aluminum storms should be avoided. The visual impact of storms may be minimized by selecting colors which match existing trim color. Arched top storms are available for windows with special shapes. Although interior storm windows appear to offer an attractive option for achieving double glazing with minimal visual impact, the potential for damaging condensation problems must be addressed. Moisture which becomes trapped between the layers of glazing can condense on the colder, outer prime window, potentially leading to deterioration. The correct approach to using interior storms is to create a seal on the interior storm while allowing some ventilation around the prime window. In actual practice, the creation of such a durable, airtight seal is difficult.

Window Replacement

Although the retention of original or existing windows is always desirable and this Brief is intended to encourage that goal, there is a point when the condition of a window may clearly indicate replacement. The decision process for selecting replacement windows should not begin with a survey of contemporary window products which are available as replacements, but should begin with a look at the windows which are being replaced. Attempt to understand the contribution of the window(s) to the appearance of the facade including: **1)** the pattern of the openings and their size; **2)** proportions of the frame and sash; **3)** configuration of window panes; **4)** muntin profiles; **5)** type of wood; **6)** paint color; **7)** characteristics of the glass; and **8)** associated details such as arched tops, hoods, or other decorative elements. Develop an understanding of how the window reflects the period, style, or regional characteristics of the building, or represents technological development.

Armed with an awareness of the significance of the existing window, begin to search for a replacement which retains as much of the character of the historic window as possible. There are many sources of suitable new windows. Continue looking until an acceptable replacement can be found. Check building supply firms, local woodworking mills, carpenters, preservation oriented magazines, or catalogs or suppliers of old building materials, for product information. Local historical associations and state historic preservation offices may be good sources of information on products which have been used successfully in preservation projects.

Consider energy efficiency as one of the factors for replacements, but do not let it dominate the issue. Energy conservation is no excuse for the wholesale destruction of historic windows which can be made thermally efficient by historically and

aesthetically acceptable means. In fact, a historic wooden window with a high quality storm window added should thermally outperform a new double-glazed metal window which does not have thermal breaks (insulation between the inner and outer frames intended to break the path of heat flow). This occurs because the wood has far better insulating value than the metal, and in addition many historic windows have high ratios of wood to glass, thus reducing the area of highest heat transfer. One measure of heat transfer is the U-value, the number of Btu's per hour transferred through a square foot of material. When comparing thermal performance, the lower the U-value the better the performance. According to ASHRAE 1977 Fundamentals, the U-values for single glazed wooden windows range from 0.88 to 0.99. The addition of a storm window should reduce these figures to a range of 0.44 to 0.49. A non-thermal break, double-glazed metal window has a U-value of about 0.6.

Conclusion

Technical Preservation Services recommends the retention and repair of original windows whenever possible. We believe that the repair and weatherization of existing wooden windows is more practical than most people realize, and that many windows are unfortunately replaced because of a lack of awareness of techniques for evaluation, repair, and weatherization. Wooden windows which are repaired and properly maintained will have greatly extended service lives while contributing to the historic character of the building. Thus, an important element of a building's significance will have been preserved for the future.

Additional Reading

ASHRAE Handbook 1977 Fundamentals. New York: American Society of Heating, Refrigerating and Air-conditioning Engineers, 1978 (chapter 26).

Ferro, Maximillian. *Preservation: Present Pathway to Fall River's Future.* Fall River, Massachusetts: City of Fall River, 1979 (chapter 7).

"Fixing Double-hung Windows." *Old House Journal* (no. 12, 1979): 135.

Morrison, Hugh. *Early American Architecture.* New York: Oxford University Press, 1952.

Phillips, Morgan, and Selwyn, Judith. *Epoxies for Wood Repairs in Historic Buildings.* Washington, DC: Technical Preservation Services, U.S. Department of the Interior (Government Printing Office, Stock No. 024016000951), 1978.

Rehab Right. Oakland, California: City of Oakland Planning Department, 1978 (pp. 7883).

"Sealing Leaky Windows." *Old House Journal* (no. 1, 1973): 5.

Smith, Baird M. "Preservation Briefs: 3 Conserving Energy in Historic Buildings."

Washington, DC: Technical Preservation Services, U.S. Department of the Interior, 1978.

Weeks, Kay D. and David W. Look, "Preservation Briefs: 10 Exterior Paint Problems on Historic Woodwork." Washington, DC: Technical Preservation Services, U.S. Department of the Interior, 1982.

Washington, D.C. 1981

Home page logo: Historic six-over-six windows--preserved. Photo: NPS files.

This publication has been prepared pursuant to the National Historic Preservation Act of 1966, as amended, which directs the Secretary of the Interior to develop and make available information concerning historic properties. Technical Preservation Services (TPS), Heritage Preservation Services Division, National Park Service prepares standards, guidelines, and other educational materials on responsible historic preservation treatments for a broad public.

Order Brief | Technical Preservation Services | Preservation Briefs | Search | Questions/Answers

KDW