



Sleeping Bear Dunes National Lakeshore
Michigan

South Manitou Island Life-Saving Station and Village

Cultural Landscape Report

April 2026





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Sleeping Bear Dunes National Lakeshore
Michigan

Cultural Landscape Report

South Manitou Island Life-Saving Station
and Village

April 2026

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Cultural Landscape Report

Sleeping Bear Dunes National Lakeshore

Michigan

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Introduction

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Introduction



Figure 1-1. South Manitou Island Life-Saving Station (source: Mundus Bishop, 2024).

This document presents the Cultural Landscape Report (CLR) for South Manitou Island Life-Saving Station and Village (the study area) within Sleeping Bear Dunes National Lakeshore (the national lakeshore).¹¹

This CLR is the primary treatment document for the cultural landscape associated with South Manitou Island Life-Saving Station and Village. This CLR presents detailed documentation of the historical development, existing condition, analysis of integrity, and identification of contributing features. This document establishes a treatment philosophy and recommendations to guide long-term care and stewardship of the cultural landscape.

This work builds upon previously developed studies, investigations, and documentation for South Manitou Island Life-Saving Station and Village. These include the 2022 Sleeping Bear Dunes National Lakeshore

Foundation Document, 1999 South Manitou Island Historic Structure and Cultural Landscape Report, 2008 Sleeping Bear Dunes General Management Plan, Wilderness Study and Environmental Impact Statement, 1984 Historic Resource Study Sleeping Bear Dunes National Lakeshore, 1982 South Manitou Island Life-Saving Station Historical Structure Report, 1983 South Manitou Island Light Station Complex and Life-Saving Station National Register of Historic Places (NRHP) Nomination and 1999 Determination of Eligibility, as well as relevant plans and resources reports.

The planning and design of improvements to provide safe and reliable boat access to South Manitou Island was underway during the development of this CLR. Construction of improvements occurred after CLR site reconnaissance and is not documented in existing condition documentation or evaluated in the integrity analysis.

¹¹ The study area is within South Manitou Island Light Station, Life-Saving Station, and Village Historic District. This CLR does not include documentation of South Manitou Island Light Station. The 2026 update to South Manitou Island Light Station Complex and Life-Saving Station Historical District and 1999 Historic Structure Report and CLR for South Manitou Island Light Station presents documentation of historical development, existing condition, analysis of integrity, and treatment guidance for South Manitou Island Light Station.

Study Area

Sleeping Bear Dunes National Lakeshore is in the northwestern portion of Michigan's Lower Peninsula. The 71,318-acre national lakeshore consists of a portion of mainland Benzie and Leelanau counties and South Manitou and North Manitou Islands. The national lakeshore protects natural features along the north-northwest shore of Lake Michigan, including its most notable feature—the perched dunes—three U.S. Life-Saving Service Stations along Manitou Passage, one lighthouse, coastal villages, and picturesque farmsteads reflecting its rich maritime, agricultural, and recreational history.

South Manitou Island Life-Saving Station and Village are seven miles north-northwest of mainland portions of the national lakeshore and a quarter mile northeast of South Manitou Island Light Station. The study area is on the southeast point of South Manitou Island on South Manitou Harbor, where it was historically sited to provide aid to ships traveling through Manitou Passage.

Development of South Manitou Island by Euro-Americans began in the early 1830s with settlers establishing logging operations on the island to supply cordwood to steamships traveling through Manitou Passage. South Manitou Island was an important refuge for ships seeking shelter from the sudden squalls on Lake Michigan, as it was the only natural deep harbor for a perilous 300-mile stretch of water. The harbor was marked by South Manitou Island Light Station, built at the southern end of the island by 1840, and remained the only light along Manitou Passage for decades. South Manitou Island was recommended as a site for a U.S. Life-Saving Service Station in 1889 and opened on August 20, 1902, with a crew of one captain and six surfmen.

The study area emerged as the economic and cultural center of South Manitou Island by the time the U.S. Life-Saving Service (USLSS) became the U.S. Coast Guard (USCG) in 1915.



Figure 1-2. South Manitou Island Life-Saving Station and Village are a component of Sleeping Bear National Lakeshore (source: Mundus Bishop, adapted from NPS SLBE Map).



Figure 1-3. Existing condition of South Manitou Island Life-Saving Station and Village. The cultural landscape includes spatial patterns, buildings, structures, circulation, and small scale features established by the efforts of the U.S. Life-Saving Service and the U.S. Coast Guard (source: Mundus Bishop, 2025).



Figure 1-4. South Manitou Island Life-Saving Station, c. 1910. Lighthouse Station Boathouse is the second building from the left (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

South Manitou Island Life-Saving Station offered career opportunities for residents who may have otherwise left the island to find employment. Members of the island's farming families served at South Manitou Island Life-Saving Station, and South Manitou Island Village expanded and provided a place for crew members and their families to live year-round.

Advancements in marine equipment and navigation diminished the importance of life-saving stations throughout the Great Lakes. South Manitou Island Life-Saving Station was the site of the last remaining dock on the island and continued to be maintained primarily as a resource for the island's residents and their only connection to the mainland. The USCG rendered South Manitou Island Life-Saving and Light Stations obsolete and officially closed both stations in 1958.

Sleeping Bear Dunes National Lakeshore, including South Manitou Island Life-Saving Station and Village, were authorized by the U.S. Congress in 1970. South Manitou Island evolved into a destination for hiking, camping, and exploration. Improvement of the study area after National Park Service (NPS) acquisition primarily addressed repair and rehabilitation of South Manitou Island Life-Saving Station buildings and structures.

Project Objectives

This CLR addresses the preservation and protection of the cultural landscape of South Manitou Island Life-Saving Station and Village. This document provides baseline documentation, records changes to the cultural landscape over time, supplements existing historical data, provides recommendations for further study, and provides holistic guidance for the treatment of the cultural landscape and resource protection.

- Summarize how historic activities influenced the current landscape.
- Identify contributing features.
- Update the condition assessment of the study area.
- Identify additional opportunities for accommodating universally accessible amenities in addition to those developed as part of the 2025 dock relocation.
- Identify additional opportunities for waysides in addition to those developed as part of the 2025 dock relocation.
- Provide an overall rehabilitation plan for the study area with prioritized actions to implement the treatment.

Report Methodology

This document was conducted at a thorough level of investigation and documentation for historical research, existing condition assessment, and analysis. This research methodology, as defined by the NPS, focuses on the use of select documentation of known and presumed relevance, including readily available primary and secondary sources. This document was prepared in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for the Treatment of Cultural Landscapes.^{1,2}

Review of select documentation included readily available primary and secondary sources, including the National Archives in College Park, Maryland and Leelanau Historical Society Museum Research Center in Leland, Michigan. Document review included planning documents, administrative reports, technical reports, natural resource studies, correspondence, drawings, and photographs.

Drawings and illustrations were prepared using background data provided by the NPS. These data were supplemented by site reconnaissance in June 2024 to document existing conditions and evaluate integrity. These investigations were conducted according to best practices. Archeological investigations were not included. Noninvasive archeological investigation was completed as part of the 2024 Environmental Assessment for Improved Boat Access at Manitou Islands.^{1,3}

1.2 Page, Robert R., Cathy A. Gilbert, and Susan A. Dolan, *A Guide to Cultural Landscape Reports: Contents, Processes and Techniques*, (Washington D.C.: National Park Service, 1998).

1.3 National Park Service, *Sleeping Bear Dunes National Lakeshore: Improved Boat Access at the Manitou Islands Environmental Assessment*, (Empire, MI: National Park Service, 2024).

Park Purpose and Significance

Sleeping Bear Dunes National Lakeshore was authorized by Public Law 91-479 on October 21, 1970, to “preserve outstanding natural features along the northeastern shore of Lake Michigan, including forests, beaches, dunes, wilderness character, and glacial phenomena in their natural setting and protect them from developments and uses that would destroy the scenic beauty and natural character of the area, for the benefit, inspiration, education, recreation, and enjoyment of the public.”^{1.4}

The Foundation Document for Sleeping Bear Dunes National Lakeshore describes its significance in the following statements.^{1.5}

- The national lakeshore contains features of continental glaciation that are of global importance due to their relatively unimpacted state, the variety of features present, and their proximity to one another.
- The national lakeshore preserves outstanding scenic and publicly accessible resources. Its massive glacial headlands, expansive Lake Michigan beaches, remote islands, diverse habitats, impeccable wilderness opportunities, superb water resources, and rich human history offer an exceptional range of recreational, educational, and inspirational opportunities.
- The collection of historic sites and landscapes—indigenous, maritime, agricultural, and recreational—in the national lakeshore is of a size and quality unsurpassed on the Great Lakes and rare elsewhere on the U.S. coastline.
- The national lakeshore’s native plant and animal communities, especially the northern hardwoods, coastal forests, dune communities, and interdunal wetlands, are of a scale and quality that is rare on the Great Lakes shoreline. These relatively intact communities provide an opportunity for continuation of the ecological processes that have shaped them.

1.4 United States Department of the Interior, National Park Service. *Sleeping Bear Dunes National Lakeshore Foundation Document*. (Empire, Michigan: Sleeping Bear Dunes National Lakeshore, 2022), 4.

1.5 United States Department of the Interior, National Park Service. *Sleeping Bear Dunes National Lakeshore Foundation Document*. (Empire, Michigan: Sleeping Bear Dunes National Lakeshore, 2022), 5.

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Site History

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Introduction



Figure 2-1. U.S. Life-Saving Station Crew, undated (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

South Manitou Island Life-Saving Station evolved as part of a network of life-saving stations established through an act of Congress in 1848. The first lighthouse was established on the shore of South Manitou Island by 1840 and remained the only light through the passage for decades. South Manitou Island was recommended as a site for a U.S. Life-Saving Station in 1889 and opened on August 20, 1902, with a crew of one captain and six surfmen. The U.S. Life-Saving Station developed as a complex of separate buildings and spaces providing specific functions—administration, living quarters, life-saving training, and operations—by the time the U.S. Life-Saving Service (USLSS) became the U.S. Coast Guard (USCG) in 1915. South Manitou Island Village, consisting primarily of homes built between 1902 and the 1930s, provided housing for married men serving at the Life-Saving and Light stations.

Advancements in marine equipment and navigation techniques diminished the role of actively staffed life-saving stations on Lake Michigan. South Manitou Island Life-Saving Station was officially closed in 1958.

This chapter provides the historical context, an overview of physical development, and a statement of significance for South Manitou Island Life-Saving Station and Village. A period of significance of 1902 to 1958 captures the establishment of South Manitou Island Life-Saving Station and Village through the closure of South Manitou Island Life-Saving Station in 1958.

A summary and chronology describe South Manitou Island Life-Saving Station through four periods of physical development and change that document its evolution in greater detail.

Historical Context and Overview

South Manitou Island Life-Saving Station is representative of the nearly 200 stations that composed the USLSS and the evolution of the lifesaving service from a volunteer service through the establishment and operation of the USCG.

The opening of the Erie Canal in 1825 established the Great Lakes as a cost-effective and efficient shipping route to facilitate the movement of people and goods from the Atlantic coast to the Midwest. Manitou Passage, east of South Manitou Island, was the most important route to the Straits of Mackinac, which linked Lake Michigan with the other Great Lakes, the Erie Canal, and the coastal ports of the Eastern seaboard and offered well-sheltered and deep ports. This rise of traffic through Manitou Passage created a surge in the number of shipwrecks along the route,

as navigating through its sandy shoals to the safety of harbors was challenging in good conditions and was notoriously treacherous during storms. South Manitou Island's crescent-shaped bay and deep, natural harbor protected steamships from volatile storms that arose on Lake Michigan without warning.

William Burton, the first documented full-time occupant of South Manitou Island, arrived around 1835 and operated a cordwood station. Burton established a house and wharf near the center of the crescent-shaped bay. Historic documentation indicates that "in addition to a trading post and cordwood supply, the harbor at South Manitou also had a wharf, a blacksmith shop, and a grocery store" by 1847. The area became the center of the island community.²¹

2.1 Mark F. Pfaller, Kathleen E. Kelley, Diane T. Turner, and Jay P. Reis, *Historical and Architectural Data Sections, Historic Structure Report, South Manitou Island Life-Saving Station, Sleeping Bear Dunes National Lakeshore*. Edited by Mark F. Pfaller. (Milwaukee: Mark F. Pfaller Associates, 1982), 12; NPS, *South Manitou Nomination Amendment*, 9.

Manitou Passage

Manitou Passage extends 30 miles from Point Betsie Lighthouse north to South Fox Island Light and Grand Traverse Light at the tip of Leelanau Peninsula. The stretch of Manitou Passage between Manitou Islands and Leelanau Peninsula offers the shortest route from the mouth of Lake Michigan to major points at the head of the lake, including Gary, Indiana; Milwaukee, Wisconsin; and Chicago, Illinois.

Odawa and Ojibwa families and their ancestors traveled along the Manitou Passage during seasonal migrations. Euro-American fur traders later followed this route as they traveled between Mackinaw and major fur trapping areas in central and southern Michigan. The hazards of the passage's hidden shoals and steep shorelines became well known as larger sailing ships became popular on Lake Michigan. South Manitou's natural harbor was used as an overnight stopping point for ships and popular "wooding station" for steamboats fueled by cordwood. The United States government recognized the dangers of the passage and established navigational aids and lifesaving programs at several points along the route, including Sleeping Bear Point, South Manitou Island, and North Manitou Island.²²

2.2 United States Department of the Interior, National Park Service. *South Manitou Island Light Station, Life-Saving Station, and Village Historic District National Register for Historic Places Nomination*. 80% DRAFT (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore), 35.



South Manitou Island Life-Saving Station

Figure 2-2. Manitou Passage Navigational Map, 1863 (source: U.S. Army Corps of Engineers).

The lack of a light to guide ships through Manitou Passage led the U.S. Congress to appropriate \$5,000 for the construction of a light station on the southern tip of South Manitou Island to mark the dangerous straits of Manitou Passage. South Manitou Island Lighthouse was completed by 1840 and provided navigation through the night and inclement weather. An inspection of the lighthouse in 1850 noted extensive deterioration and, in 1857, the condition was so poor that a full replacement was recommended. The original lighthouse was replaced in 1858. Shipping traffic continued to increase and passing ships were unable to distinguish the South Manitou Island Lighthouse from the lights on other vessels. A separate light, South Manitou Tower, was recommended. South Manitou Tower construction began in 1871 and was completed in 1872 in front of the 1858 keeper's dwelling with a taller light and third order Fresnel lens.^{2,3}

The USLSS was established in 1871 and formalized the previously established volunteer rescue system. The USLSS financed the establishment of stations and the hiring of six-man crews for each station. Neighboring North Manitou Island had a Life-Saving Station with a full-time crew by 1878.

The volume of shipping and number of shipwrecks through Manitou Passage continued to grow during the 1880s, and the public advocated for an additional life-saving facility. The best site for the station was debated, and Sumner I. Kimball, General Superintendent of the USLSS, assigned Charles Burmeister, a marine correspondent from Frankfort, Michigan, the task of assessing South Manitou Island and Sleeping Bear Point for their suitability for life-saving facilities. Burmeister interviewed residents and documented lake and weather conditions that led to

major disasters. Burmeister submitted his report in 1889 and recommended that stations be located on both South Manitou Island and Sleeping Bear Point, stating the following.^{2,4}

"I find that both places are dangerous to Navigation and Life-Saving Stations are needed at both ports. Sleeping Bear Point and vicinity presents a sterile and inhospitable coast-an elevation rising almost perpendicular from the lake. During heavy gales the breakers dash right up to the base of the banks...South Manitou Island with her natural Harbor or Bay is eagerly sought by all storm tossed vessels; during gales it is not uncommon to see 15 to 50 vessels--steamers, etc., anchored there; accidents occur there every year...All vessel men earnestly desire that a life-saving station should also be established on South Manitou Island, it being an isolated place, and with the assistance of the life crew many a disaster could be averted, and much property saved..."^{2,5}

2.3 Quinn Evans, *Historic Structure Report: South Manitou Island Light Station*. (Ann Arbor: Quinn Evans/Architects, 1999), 16-19; Terry Pepper, Seeing the light - south manitou island lighthouse, accessed June 3, 2025, <http://terrypepper.com/lights/michigan/southmanitou/southmanitou.htm>.

2.4 Pfaller, *South Manitou Island Life-Saving Station HSR*, 12.

2.5 Charles Burmeister to Kimball, January 27, 1889, Letter Register 74206, General Records of the Treasury Department, United States Life Saving Service, South Manitou Island, Michigan, RG 26, Judicial and Fiscal Branch, National Archives.

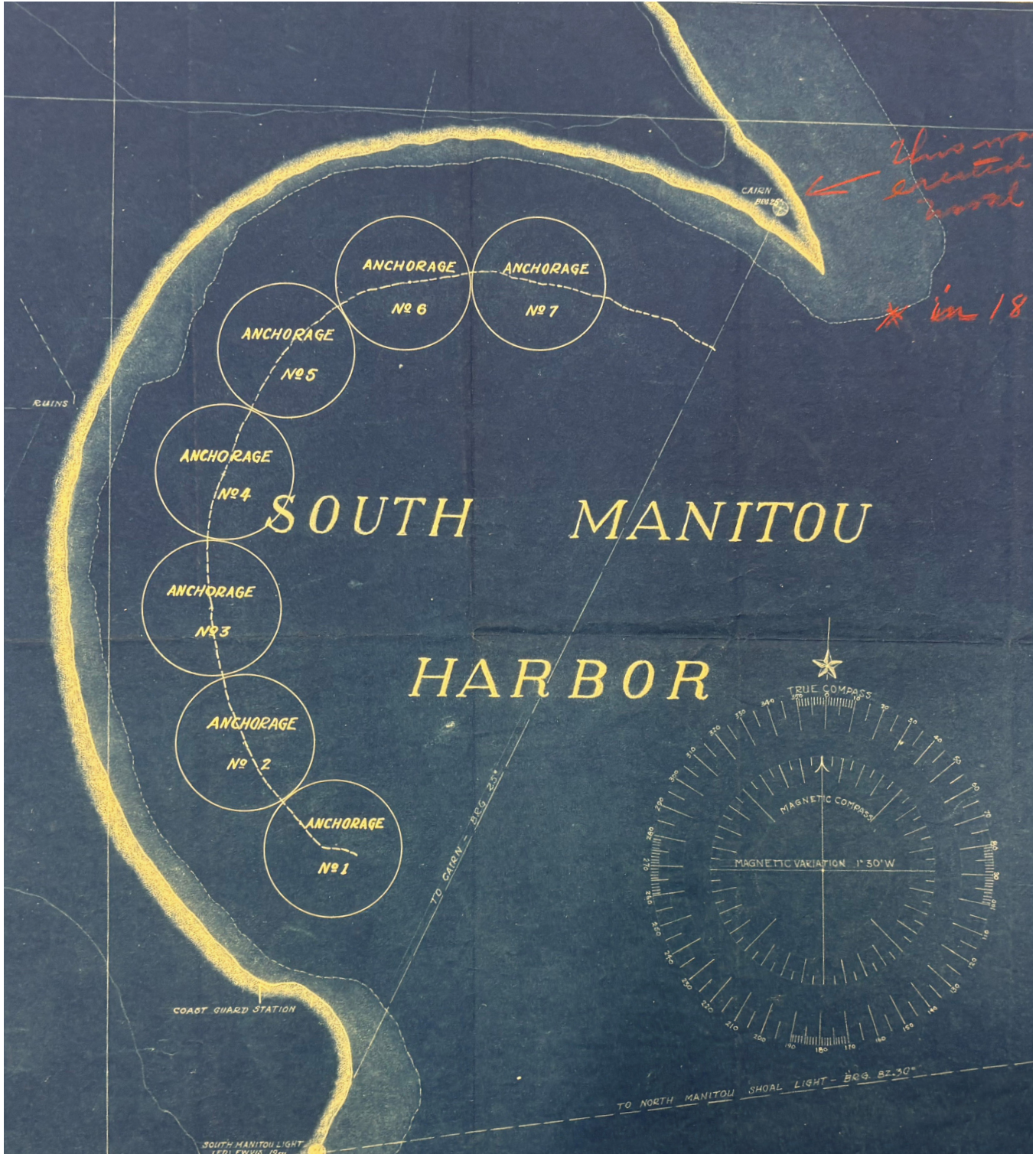


Figure 2-3. South Manitou Harbor, undated (source: National Archives).



Figure 2-4. South Manitou Island Life-Saving Station, c. 1910. Lighthouse Station Boathouse is the second building from the left (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

The site of the proposed South Manitou Island Life-Saving Station was selected during the early 1890s and opened in 1902, as the period of the greatest need for life-saving facilities on Manitou Passage was declining.^{2.6}

Ships had switched to coal and other fuel sources and no longer stopped at South Manitou Island for cordwood by the time South Manitou Island Life-Saving Station opened. The original dock near the center of South Manitou Harbor fell into disrepair and the island community shifted south to a new Village adjacent to South Manitou Island Life-Saving Station where residents and businesses re-established to be closer to docking facilities that were regularly maintained.^{2.7}

The community's shift south was also linked to career opportunities with the USLSS. South Manitou Island's woodlands were largely cleared, and logging and agriculture operations were unprofitable. The USLSS

became South Manitou Island's primary economic driver and offered career opportunities for residents who may have otherwise been forced to leave the island. Members of the island's farming families served at South Manitou Island Life-Saving Station, and South Manitou Island Village expanded and provided a place for crew members and their families to live year-round. Village housing enabled families to live together, as the USLSS Station Dwelling only provided housing for single servicemen.^{2.8}

Residents built Village houses between 1902 and 1920 in a linear cluster south of South Manitou Island Life-Saving Station. The increase in the number of houses during this short time period may reflect the reorganization of governmental departments from the USLSS to the USCG in 1915, a change in policy that resulted in a greater number of married crew members, or the extension of the life-saving season to be year-long appointments.^{2.9}

2.6 Pfaller, *South Manitou Island Life-Saving Station HSR*, 13.

2.7 NPS, *South Manitou Nomination Amendment*, 10; NPS, *Coming through with Rye*, 49.

2.8 NPS, *Coming through with Rye*, 50.

2.9 United States Department of the Interior, National Park Service, *South Manitou Island Light Station, Life-Saving Station, and Village Historic District National Register for Historic Places Nomination*. 80% DRAFT. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore), 35.

Under the direction of the newly formed USCG, several improvements were made to South Manitou Island Life-Saving Station beginning in 1916, including a new launchway with a movable track that could be positioned in front of either of the boats.^{2.10}

The USCG allocated significant funding in the 1930s to replace facilities that were outdated and in poor condition. South Manitou Island Life-Saving Station

underwent major alterations over two years to establish the station as a fully modernized facility. The Station Dwelling was raised, a concrete basement was poured, and a boiler room, coal bin, laundry and storm clothes room, generator and pump room, bathrooms, and electricity were added.^{2.11}

2.10 Pfaller, *South Manitou Island Life-Saving Station HSR*, 32.

2.11 Pfaller, *South Manitou Island Life-Saving Station HSR*, 33-34.

Federal Lifesaving Programs: 1848 to 1950

The federal government's role in maritime lifesaving began in 1848 when the U.S. Congress appropriated funds to the U.S. Treasury Department to build and equip lifesaving boathouse stations along the New Jersey coast. This program, administered by the U.S. Revenue Marine Service, expanded to other states and was staffed by crews of local volunteers who mobilized in response to an emergency and were rewarded for successful rescues.

The U.S. Congress appropriated funds to the U.S. Revenue Marine Service to hire paid employees to staff its system of federally supported lifesaving stations in 1871. The number of federal lifesaving stations and the competency of the staff who operated them increased. The U.S. Life-Saving Service (USLSS) was established as a separate agency within the Treasury Department in 1878. Stations generally included a station building with integral living quarters and boat storage space, flagpole, wreck pole, lookout tower, equipment storage sheds, privy, and a water collection system. Many stations had separate crew dwellings and boathouses.

The U.S. Life-Saving Service merged with the Treasury Department's Revenue Cutter Service to form the U.S. Coast Guard in 1915. Maritime lifesaving continued as an important U.S. Coast Guard mission. The Coast Guard's lifesaving branch was permitted to maintain U.S. Life-Saving Service organization structure including operating the same land-based stations and using the same lifeboats, surfboats, and lifesaving equipment.^{2.12}

2.12 United States Department of the Interior, National Park Service. *National Register of Historic Places Multiple Property Documentation Form - U.S. Government Lifesaving Stations, Houses of Refuge, and pre-1950 U.S. Coast Guard Lifeboat Stations* (Washington, D.C.: HDR, 2013), 1, 11.

This period of modernization corresponded with the decline of the importance of South Manitou Island to maritime safety. Advancements in marine equipment and navigation techniques diminished the role of life-saving stations on Lake Michigan. The USCG continued to allocate funds for South Manitou Island Life-Saving Station's upkeep into the 1940s, with a new launchway in 1940 and an additional lookout tower in 1942. G.W. MacLane, Commander of USCG Chicago District, noted the launchway was critical to the community as "the residents on the island numbering about 65, are without other connection to the mainland, for mail, supplies or medical attention."^{2.13}

South Manitou Island Life-Saving Station and Lighthouse were officially closed in 1958. The dock had deteriorated and South Manitou Island was increasingly challenging to access.

Longtime residents left the island, with many selling their land to a developer who planned to turn South Manitou Island into a resort. Tourism attempts failed, and by the late 1960s, the National Park Service (NPS) approached landowners with plans to create Sleeping Bear Dunes National Lakeshore.^{2.14}

Sleeping Bear Dunes National Lakeshore, including South Manitou Island Life-Saving Station, was authorized by the U.S. Congress in 1970. Improvement of the station after NPS acquisition primarily addressed repair and rehabilitated South Manitou Island Life-Saving Station buildings and structures.

South Manitou Island Light Station Complex and Life-Saving Station Historical District was listed in the National Register of Historic Places on October 28, 1983 at a local level of significance. It is significant under Criterion A for its contributions to the safe navigation of Lake Michigan with a period of significance of 1858 to 1958.^{2.15}

2.13 Pfaller, *South Manitou Island Life-Saving Station HSR*, 35.

2.14 NPS, *Coming through with Rye*, 74.

2.15 South Manitou Island Light Station, Life-Saving Station, and a portion of South Manitou Island Village were listed in the National Register of Historic Places in 1983 as a single district. An update to South Manitou Island Light Station Complex and Life-Saving Station Historical District, developed concurrently with this CLR, expanded the NRHP boundary to include the entirety of South Manitou Island Village and demonstrates the national significance of the expanded district within the context of Maritime History, Transportation, and Architecture.

Statement of Significance

South Manitou Island Life-Saving Station is part of a formalized network of life-saving stations established by the federal government in the mid-1800s. South Manitou Island Life-Saving Station and Village are significant for their association with navigation and life-saving measures developed on the Great Lakes to support the shipping industry that made the development of the Midwest feasible.

South Manitou Island's crescent-shaped harbor and its hardwood forest that supplied fuel to steamships made it an important stop on the heavily traveled Manitou Passage. Manitou Passage was the most important route to the Straits of Mackinac, linking Lake Michigan with other Great Lakes, Erie Canal, and coastal ports of the Eastern seaboard. South Manitou Island Life-Saving and Light Stations were vital to safely traveling through Manitou Passage's many natural dangers. South Manitou Island Village was established between the two stations and made living on South Manitou Island possible for the many crewmen who served at South Manitou Island Life-Saving and Light Stations.^{2.16}

South Manitou Island Life-Saving Station was initially established by the USLSS in 1902 and modernized after the establishment of the USCG in 1915. Design and improvement by the USLSS in the early 1900s established the station as a complex of separate buildings and spaces providing specific functions—administration, living quarters, life-saving training, and

operations—essential for its efficient functionality. Extant features are representative of typical U.S. Life-Saving Stations. These include the Station Dwelling, Lookout Tower (foundations), Equipment Storage Sheds, and Boathouses.

South Manitou Island Village was established between the lighthouse and lifesaving station as an interdependent area where crewmen lived with their families when not on duty and made living on the island possible for the many crewmen who served there.

South Manitou Island Life-Saving Station is significant for its examples of U.S. institutional architecture during the mid- to late-nineteenth century. South Manitou Life-Saving Station is a notable example of the 1890 Marquette standardized life-saving station design developed by USLSS architect Albert B. Bibb. South Manitou Island Village homes feature excellent examples of early-twentieth-century mail-order kit houses and demonstrate the utility of pre-fabrication housing for remote areas such as South Manitou Island.

The period of significance for South Manitou Life-Saving Station and Village is 1902 through 1958. This captures the establishment of South Manitou Island Life-Saving Station through 1958, the year the USCG closed South Manitou Life-Saving Station and its role in the national transportation network ended.^{2.17}

2.16 South Manitou Island Village includes several village homes traditionally inhabited by USLSS and USCG crew members. Schwarz Cabin and Comfort Station were added after the period of significance and are not associated with the USLSS or USCG.

The study area is within South Manitou Island Light Station, Life-Saving Station, and Village Historic District. This CLR does not include documentation of South Manitou Island Light Station. The 2026 update to South Manitou Island Light Station Complex and Life-Saving Station Historical District and 1999 Historic Structure Report and CLR for South Manitou Island Light Station presents documentation of historical development, existing condition, analysis of integrity, and treatment guidance for South Manitou Island Light Station.

2.17 The period of significance for South Manitou Island Light Station, Life-Saving Station, and Village National Register District is 1858 to 1958. The period of significance, which begins in 1858, the date of the earliest extant resource from when the original 1839 light station was rebuilt, and ends in 1958, the year the US Coast Guard closed the Life-Saving Station and the historic district's role in the national transportation network ended.

The period of significance for South Manitou Life-Saving Station and Village is abbreviated. It begins with the establishment of South Manitou Island Life-Saving Station in 1902.

Periods of Landscape Development

Four periods of landscape development describe the physical evolution of the cultural landscape from the earliest use of the area by indigenous peoples through the present day. The beginning and end of each period corresponds to and documents major physical changes in the cultural landscape. Two periods of landscape development occur during the period of significance of 1902 to 1958.

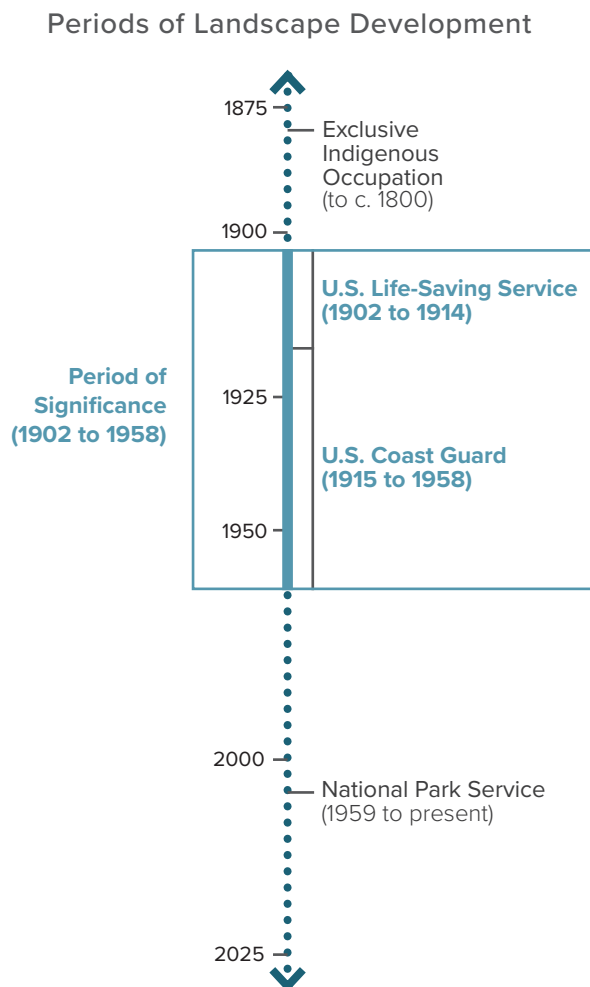


Figure 2-5. Four periods of landscape development describe the evolution of South Manitou Island Life-Saving Station and Village.

Exclusive Indigenous Occupation to c. 1901

North and South Manitou Islands are part of the ancestral home of Anishinaabek peoples, comprised of the Ottawa/Odawa, Chippewa/Ojibway, and Potawatomi/Bodawatomi peoples, and provided them with food, shelter, medicine, and cultural significance for thousands of years. The earliest evidence of habitation at South Manitou Island dates to the late Woodland period (500/600 to 1620 CE). Archeological sites in the lakeshore region of Michigan indicate the region may have been used as short-term, temporary sites for seasonal living. These locations were used as satellite sites to larger seasonal villages by Ottawa and Ojibwa people who occupied nearby areas from the late 1600s through the mid-1800s.^{2.18}

Life in the upper Great Lakes was radically altered after contact with Europeans in the early 1600s, as fur trading upended traditional economies, leading to warfare amongst tribes, coupled with a series of disease epidemics. Drastic population shifts led to a reshuffling of traditional villages, with Ottawa and Ojibwa coexisting on the Leelanau Peninsula by the early 1800s. During this era, they had at least seven villages in present-day Leelanau and Benzie counties, but no major settlements on South and North Manitou Islands, although both areas were probably used for hunting and fishing.^{2.19}

Facing economic hardship and sustained pressure from the United States, Anishinaabek leaders signed the Treaty of Washington in 1836, ceding their claim to the Upper Peninsula. The treaty opened the region to Euro-American settlement while reserving permanent reservation lands and the rights to hunt, fish, and gather.^{2.20}

2.18 NPS, *Coming through with Rye*, 23.

2.19 NPS, *Coming through with Rye*, 21; MacDonald, *Tending a 'Comfortable Wilderness'*, 19 to 21.

2.20 MacDonald, *Tending a 'Comfortable Wilderness'*, 19 - 21; NPS, "Anishnaabek Aki" - Land of the Anishnaabek.

1800 to 1837

South Manitou Island became part of the Indiana Territory in 1800, the Michigan Territory in 1805, and the state of Michigan in 1837.^{2.21}

c. 1835

William Burton and his family, the first documented Euro-American settlers at South Manitou Island, began to supply passing ships with cordwood. Burton established a house and wharf near the center of South Manitou Harbor. The settlement evolved into the first Euro-American village on South Manitou Island.^{2.22}

1840

U.S. Congress appropriated funds on July 7, 1838, for a lighthouse on the southern tip of South Manitou Island. South Manitou Island Light Station was completed in 1840.^{2.23}

1847

Federal land surveyor Orange Risdon surveyed South Manitou Island. By this time, homesteaders had logged much of the island, established farms, and developed the area near Burton's Wharf, which included a blacksmith shop and grocery store. Risdon's notes indicated surrounding lands had been logged.^{2.24}

1854

U.S. Congress allocated money to purchase lifeboats for 25 stations, including the 1854 Frances metallic Surfboat assigned to the lighthouse keeper at South Manitou Island Light Station.^{2.25}

South Manitou Island Light Station's Boathouse was built around this time, along the protected natural harbor three-quarters of a mile north-northeast of South Manitou Island Light Station.^{2.26}

1858

A second lighthouse and keeper's dwelling were built at South Manitou Island Light Station to replace the original 1840 lighthouse. An inspection of the original lighthouse in 1850 noted extensive deterioration and, in 1857, the condition was so poor that a full replacement was recommended.^{2.27}

1869 to 1871

Shipping traffic had increased to volumes that ships were unable to distinguish South Manitou Island Lighthouse from the lights on passing ships. A separate light, South Manitou Tower, was recommended. The South Manitou Tower construction started in 1871 and was completed in 1872 in front of the 1858 Keeper's Dwelling with a taller light and third order Fresnel lens with a focal plane of 100 feet.^{2.28}

1870

South Manitou's harbor was the most used refuge on the Great Lakes by 1870.^{2.29}

The 1870 federal population census of South Manitou Island documented 14 households and 76 people.^{2.30}

1871

The U.S. Life-Saving Service was created.^{2.31}

2.21 Quinn Evans, *South Manitou Island Light Station HSR and CLR*, 25.

2.22 NPS, *Coming through with Rye*, 164, 207.

2.23 Quinn Evans, *South Manitou Island Light Station HSR and CLR*, 17.

2.24 Pfaller, *South Manitou Island Life-Saving Station HSR*, 12; 1999 SMI Village Nomination, 9.

2.25 Quinn Evans, *South Manitou Island Light Station HSR and CLR*, 20.

2.26 Quinn Evans, *South Manitou Island Light Station HSR and CLR*, 92.

2.27 Quinn Evans, *South Manitou Island Light Station HSR and CLR*, 18; Terry Pepper, *Seeing the light*.

2.28 Quinn Evans, *South Manitou Island Light Station HSR and CLR*, 19.

2.29 NPS, *South Manitou Complex Nomination*, 7.

2.30 NPS, *Coming through with Rye*, 39.

2.31 NPS, *North Manitou NRHP Nomination*, 16.

1889

Charles Burmeister, a marine correspondent for midwestern newspapers, submitted a report to USLSS General Superintendent Sumner J. Kimball recommending a life-saving station be built on South Manitou Island and Sleeping Bear Point to serve Manitou Passage.^{2,32}

“In order to get the opinions of Lake captains, sailors, fishermen, and old settlers, I have questioned a large number of them and find that the old adage proves a true one - “many men - many minds” scarcely finding two that agree. Some thinking it an absolute necessity to have a station located on Sleeping Bear Point, others insist that South Manitou is the desired spot. But in sifting the chaff, I find that both places are dangerous to navigation and life saving stations are needed at both points...

South Manitou Island with her natural harbor or bay is eagerly sought by all storm tossed vessels; during gales it is not uncommon to see from 15 to 50 vessels, steamers, etc., anchored there. Accidents occur there every year, among them may be mentioned.

Having been Marine Correspondent for Chicago - Milwaukee - Detroit and Cleveland papers many years, and in a position to observe, and have during that time seen and learned to appreciate the U.S. Life Saving Service, do also herewith most earnestly recommend the building of life stations on Sleeping Bear and South Manitou Island...”

Charles Burmeister, January 22, 1889 ^{2,33}

1899 to 1900

Garden City Sand Company deeded lots 3 and 4 in section 3, township 30 north, range 15 west, to the Federal Government to construct a life-saving station.^{2,34}

Lot boundaries were disputed, and the land was resurveyed in 1900. Garden City Sand Company was unwilling to sell the property originally deeded, and land west of the original site was selected for South Manitou Island Life-Saving Station.^{2,35}

2.32 Pfaller, *South Manitou Island Life-Saving Station HSR*, 12.

2.33 Vent, Myron H. *South Manitou Island: From Pioneer Community to National Park*, (Springfield, VA: The Goodway Press, Inc., 1973).

2.34 Pfaller, *South Manitou Island Life-Saving Station HSR*, appendix I.

2.35 Pfaller, *South Manitou Island Life-Saving Station HSR*, appendix I.



Figure 2-6. 1847 Orange Risdon Survey of South Manitou Island (source: General Lane Office, U.S. Bureau of Land Management).

1901

The lighthouse district engineer wrote several letters to the Lighthouse Board indicating South Manitou Island Light Station's Boathouse was no longer functional, was located on land where ownership was unclear, and should be moved to the site of the planned South Manitou Island Life-Saving Station.

“I beg to state that the boat house at the station is old and insufficient capacity for the boats furnished to the service. It is located on property which does not belong to the United States...The United States Life Saving Service have acquired a certain tract of land and are about to build a new Life Saving Station at a point to the northern of the Lighthouse Reservation...The suggestion is made that the boathouse be rebuilt and enlarged and moved on to the reservation of the U.S. Life Saving Service, if the necessary permission can be obtain from that service, which is believed to be possible....The boat house being rebuilt should conform to the structures that the Life Saving Service are about to erect.”

The USLSS consented to the proposal with the stipulation that the Boathouse would be removed if requested by the USLSS. Documentation is unclear as to whether a new Boathouse was built or if the original Boathouse was moved and repaired at South Manitou Island Life-Saving Station.^{2,36}

The USLSS awarded Robert Newcombe contracts to build South Manitou Island Life-Saving Station. David C. Wickham, construction superintendent, identified building locations in the field. This included the Station Dwelling and Boathouse #1, oriented to the lake, and an outbuilding—Wood Shed—set directly south of the

Station Dwelling. Work began in late June 1901 and was completed in 1902.

Robert Newcombe was awarded additional contracts for a drill pole (wreck pole), flag staff with accessories, and a second Boathouse—Boathouse #2.^{2,37}

Work on Boathouse #2 stopped when the land along the shore slid and destroyed the foundation of the building. The crew secured part of the wreckage, and Edwin P. Bacon, Supervisor of Construction, reported that Boathouse #2 was located at the edge of a ledge in the lake bed composed of marl and covered by sand and gravel. The sand became too heavy and slid, leaving a hole 250'-0" wide and 10'-0" to 34'-0" deep.^{2,38}

2.36 Quinn Evans, *South Manitou Island Light Station HSR and CLR*, 92 to 94.

2.37 Pfaller, *South Manitou Island Life-Saving Station HSR*, 17, 18.

2.38 NPS, *Historic Data Section for Inclusion in Historic Structure Report*, 74 to 75.

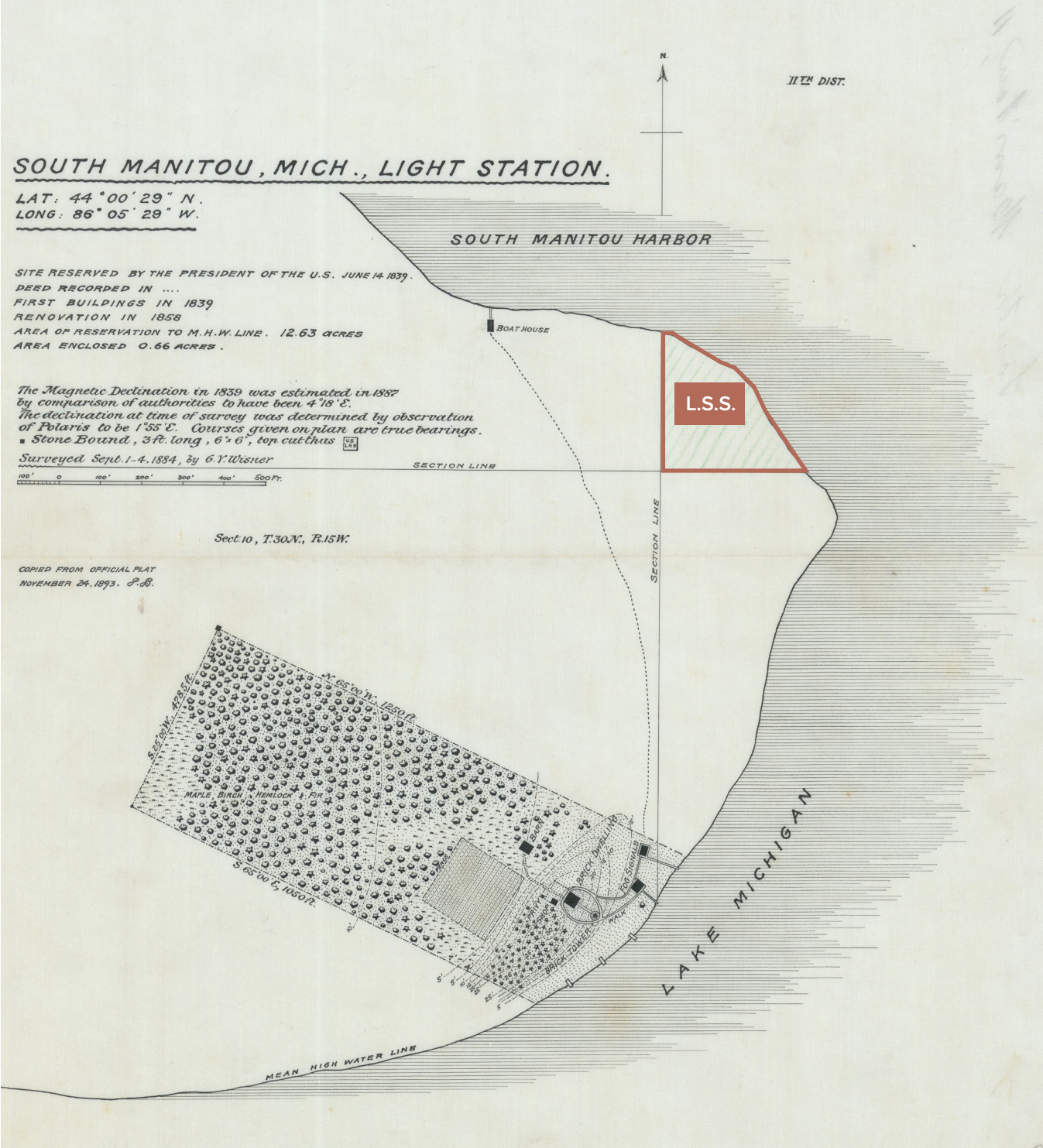


Figure 2-7. 1893 survey of South Manitou Island Light Station and Boathouse. South Manitou Island Life-Saving Station is labeled "L.S.S." (source: National Archives).

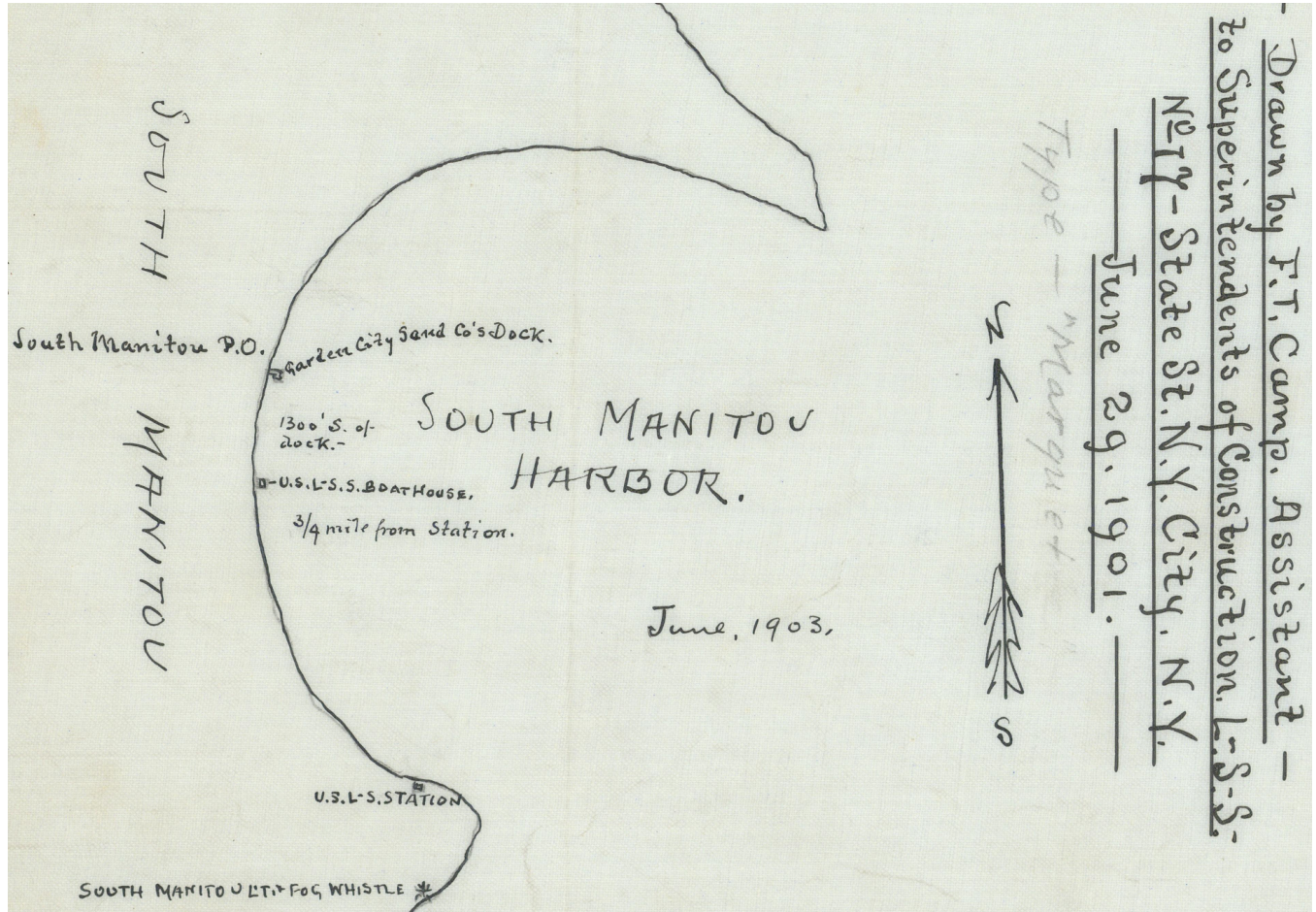


Figure 2-8. 1901 South Manitou Island Life-Saving Station plan of plot with locations of South Manitou Island Light Station (labeled "Fog Whistle"), USLSS Station (labeled "U.S.L-S. Station"), Boathouse #2 (labeled "U.S.L-S.S. Boat House"), and the old dock (labeled "Garden City Sand Co's Dock") (source: National Archives).

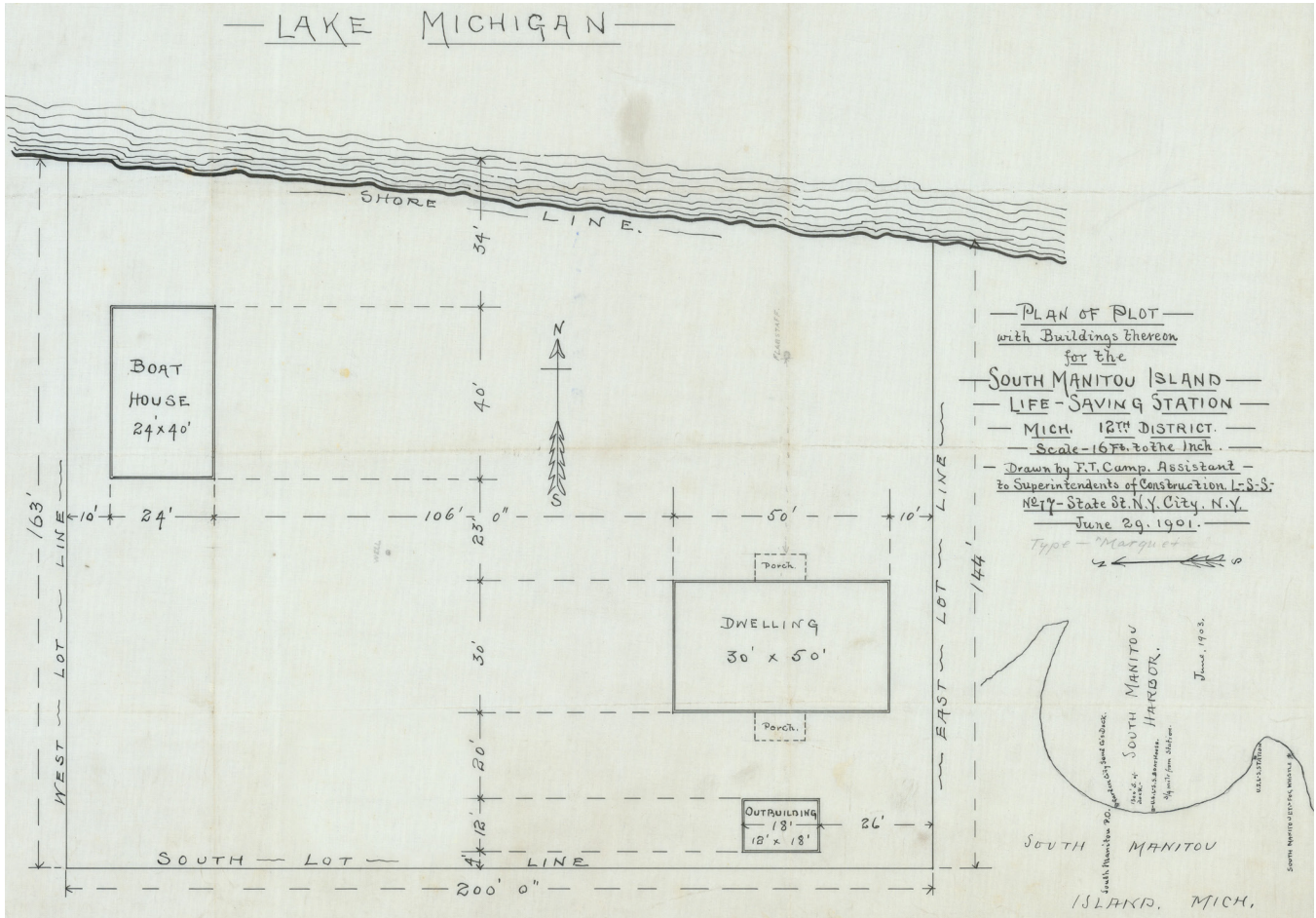


Figure 2-9. 1901 South Manitou Island Life-Saving Station plan of plot with locations (source: National Archives).



Figure 2-10. South Manitou Island Life-Saving Station and Village, 1902 to 1914 (source: Mundus Bishop, 2025).

U.S. Life-Saving Service (1902 to 1914)

The USLSS, created in 1871, was established as a separate agency within the Treasury Department in 1878. Increased investment in the USLSS provided for the establishment of South Manitou Island Life-Saving Station.

South Manitou Island Life-Saving Station was located along the shoreline to allow easy embarking and debarking of rescue boats at the protected southern tip of the harbor with clear views to the most dangerous parts of Manitou Passage. Buildings were arranged in an orthogonal grid along with direct access to the lake and a boardwalk connection to South Manitou Island Light Station.

Development of South Manitou Island Life-Saving Station in the late 1800s and early 1900s established the station as a complex of separate buildings and spaces providing specific functions essential for the efficient functionality of the station. This included the Station Dwelling, Wood Shed, Cistern Building, Storm Signal Tower and Flag Locker, and three Boathouses, one of which was owned by South Manitou Island Light Station. The areas around the structures were landscaped with Lombardy poplar trees, a signal to ship captains that a lifesaving station was nearby.

During this period, the center of the community on South Manitou Island shifted south to the lands between South Manitou Island Life-Saving and Light Stations.^{2.39}

1902

South Manitou Island Life-Saving Station opened on August 20, 1902, and included a crew of one captain and six surfmen. Gus B. Lofberg, the first Officer in Charge, was appointed on February 22, 1902.^{2.40}

c. 1902

The Benth Johnson House was completed shortly after South Manitou Island Life-Saving Station opened. Benth Johnson, a local farmer who later joined the United States Life-Saving Service, lived in the house.^{2.41}

1903

Boathouse #2 was completed in October 1903 at a new location, 4,000' north of South Manitou Island Life-Saving Station. This site was better protected with more stable ground for piling.^{2.42}

An underwater cable connecting North and South Manitou Islands to the mainland by telephone was also completed.^{2.43}

Gus B. Lofberg was transferred to Station Racine on November 4, 1903. Jacob Van Weilden was appointed keeper on November 4, 1903.^{2.44}

2.39 NPS, *Coming through with Rye*, 48, 50.

2.40 NPS, *Coming through with Rye*, 46.

2.41 NPS, *South Manitou Island Historic District NRHP Nomination. 80% DRAFT*, 16.

2.42 Pfaller, *South Manitou Island Life-Saving Station HSR*, 19, 25.

2.43 Pfaller, *South Manitou Island Life-Saving Station HSR*, 22.

2.44 Station south manitou island - department of defense, accessed February 8, 2025, <https://media.defense.gov/2017/Jul/04/2001772988/-1/-1/0/SOUTHMANITOU.PDF>.

Life-Saving Drills



Figure 2-11. Conclusion of the Beach Apparatus Drill, c. 1926-28 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

Life-Saving Stations included two common features – a flag signal pole and a wreck pole. The crew signaled to passing ships with coded flags to communicate their location and warn of offshore danger or weather conditions. A wreck pole simulated the mast of a ship and was used to practice the rescue of stranded mariners. This breeches buoy drill was performed twice a week as described below.

“For practice with the beach apparatus there is provided near each station a suitable drill ground, prepared by erecting a spar, called a wreck-pole, to represent the mast of a stranded vessel 75 yards distant (over the water if possible) from the place where the men operate, which represents the shore. At drill the crew is mustered in the boat-room, and each man, upon his number being called, salutes the commanding officer and recites in proper sequence every act he is to perform in the exercise as prescribed in the Service Manual. At the proper words of command,

they all fall into their allotted places at the drag-ropes of the apparatus-cart and draw it to the drill ground, where they perform the remainder of the exercise, which consists in effecting a mimic rescue by rigging the gear and taking a man ashore from the wreck-pole in the breeches buoy. The officer conducting the drill carefully notes the time which elapses from the moment he gives the initial command ‘action’ until the rescued man sets foot upon the shore.

If in one month after the opening of the ‘active season’ a crew can not accomplish the rescue within five minutes it is considered that they have been remiss in drilling, or that there are some stupid men among them. They are cautioned that if upon the next visit of the [Inspector of Stations] a marked improvement is not shown some decisive action will be taken to secure it. This usually produces the desired effect.”^{2.45}

2.45 Sumner I. Kimball, *Organization and Methods of the United States Life-Saving Service* (Washington, D. C.: U. S. Government Printing Office, 1890), 9.

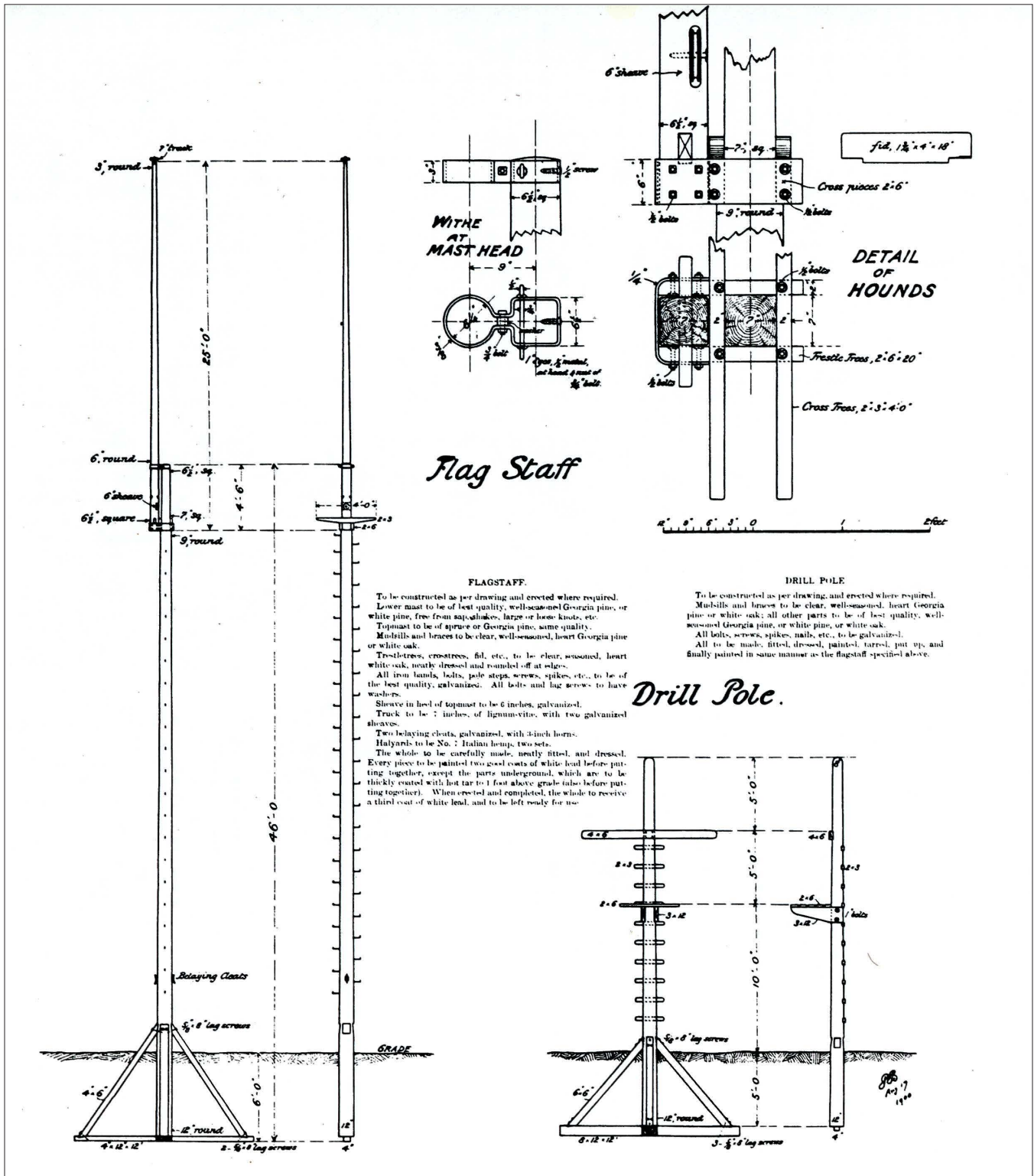


Figure 2-12. Typical flag staff and drill pole, 1900 (source: National Archives).

1904

Boathouse #2 remained empty until September 1904, when a 34-foot lifeboat was delivered. Shortly after the boat arrived, a USLSS inspector recommended moving Boathouse #2 south to South Manitou Life-Saving Station.^{2.46}

1905

South Manitou Island Life-Saving Station's crew built a lookout tower. Its location is not documented, but it was likely on the lower point of South Manitou Harbor, where the entire Manitou Passage was visible.^{2.47}

before 1907

Shoreline patrol posts were established by 1907. White painted posts set in sand were placed along the shore to ensure crewmen completed their patrol.^{2.48}

Telephone Lines

South Manitou Island Life-Saving Station provided crucial services for the relatively isolated population of the island. This included telephone service between North and South Manitou Island Life-Saving Stations, the life-saving station on the mainland at Sleeping Bear Point, and North Manitou Island Crib Light. The first telephone line was installed in 1905 and provided the USLSS and island residents with direct contact to the outside world.

The 1905 underwater cable continues to provide telephone service between South Manitou Island and mainland Michigan. The underwater cable to North Manitou Island was severed in the 1940s when a freighter dropped anchor during a storm and ripped the cable in two while raising its anchor. Many poles remain on North and South Manitou Islands with metal "USCG" markers, indicating that they were inventoried and maintained by the U.S. Coast Guard.^{2.49}

2.49 Mann, Kim. *Manitou Passage National Historic Landmark Landscape Context Statement*. Glen Arbor, Michigan: National Park Service, 2016.

2.46 Pfaller, *South Manitou Island Life-Saving Station HSR*, 26.

2.47 Pfaller, *South Manitou Island Life-Saving Station HSR*, 27.

2.48 Pfaller, *South Manitou Island Life-Saving Station HSR*, 81.



Figure 2-13. Lookout Tower, possibly built northeast of South Manitou Light Station. The tower burned in 1907, undated (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

1907

In July 1907, live cinders from a stove pipe caused a fire that destroyed the roof of a Lookout Tower. By October 1907, the station crew members had completed a new Lookout Tower.^{2.50}

Jacob Van Weilden was transferred to Station Holland on January 30, 1907. Eli E. Pugh was appointed keeper on January 11, 1907.^{2.51}

2.50 Pfaller, *South Manitou Island Life-Saving Station HSR*, 27.

2.51 Station south manitou island - department of defense, accessed February 8, 2025, <https://media.defense.gov/2017/Jul/04/2001772988/-1/-1/0/SOUTHMANITOU.PDF>.



Figure 2-14. The Station Dwelling, c. 1910 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

c. 1907

George and Selma Hutzler built the Hutzler House.^{2.52}

c. 1908

Benth Johnson built the Johnson-Kelderhouse House as a rental home. George Kelderhouse, his wife Cora, and their children historically occupied the house.

Theodore Thompson built the Theodore & Matilda Thompson House.^{2.53}

c. 1908 to 1910

The John and Lottie Tobin House was built.^{2.54}

1909

South Manitou Life-Saving Station crew rebuilt the outer 36' of the launchway at Boathouse #1 that was destroyed by a storm.^{2.55}

2.52 NPS, *South Manitou Island Historic District NRHP Nomination. 80% DRAFT*, 22.

2.53 *South Manitou Island Light Station, Life-Saving Station, and Village Historic District*, 23, 24.

2.54 United States Department of the Interior, National Park Service. *Tobin House CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2019).

2.55 Pfaller, *South Manitou Island Life-Saving Station HSR*, 27.

by 1910

Historic photographs of the Station Dwelling indicate its grounds included concrete walks, boardwalks, and deciduous tree plantings.

c. 1910

Eli E. Pugh was transferred to Station Charlevoix on August 24, 1910. Allen A. Kent was appointed keeper on August 1, 1910.^{2.56}

South Manitou Island Village mail carrier, Thomas Thompson, built the Thomas & Hattie Thompson House on the west side of the main village road and the Thompson Privy and Thompson Root Cellar around the same time.

The Thompson family augmented their income by boarding USLSS crewmen. Thomas died in 1910, and his brother took over his mail-carrier duties with Hattie serving as postmistress, with the house serving as South Manitou Island's post office.^{2.57}

Robinette or Hutzler family built a root cellar between the Robinette House and the Hutzler House. Historic documentation does not indicate which house the root cellar served.^{2.58}

by 1911

Boathouse #2 was moved to its present location east of Boathouse #1.^{2.59}

1911

The Lookout Tower was damaged by a shoreline slide in the spring of 1911. South Manitou Island Life-Saving Station's crew completed work on the replacement of the Lookout Tower by the end of the year.^{2.60}

The crew built a new well and the Well House to replace the original, likely built by Newcombe in 1901, with the initial development of the station.^{2.61}

Land along the Lighthouse Station Boathouse, Boathouse #2, and Boathouse #1 and Launchway slid into the lake, damaging two boats and 20' of the launchway at Boathouse #1.^{2.62}

by 1912

The shoreline was approximately 60' further from Boathouse #1 than its 1901 location.^{2.63}

2.56 Station south manitou island - department of defense, accessed February 8, 2025, <https://media.defense.gov/2017/Jul/04/2001772988/-1/-1/0/SOUTHMANITOU.PDF>.

2.57 Black, Sandra Thompson and Nancy Marie Johnson. "The Johnson - Thompson Story." ManitouIslandArchives.org; United States Department of the Interior, National Park Service. *T-H Thompson Privy CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2019); United States Department of the Interior, National Park Service. *T-H Thompson Root Cellar CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2019).

2.58 *South Manitou Island Light Station, Life-Saving Station, and Village Historic District*, 23.

2.59 Pfaller, *South Manitou Island Life-Saving Station HSR*, 60 to 62.

2.60 Pfaller, *South Manitou Island Life-Saving Station HSR*, 28.

2.61 Pfaller, *South Manitou Island Life-Saving Station HSR*, 28.

2.62 Pfaller, *South Manitou Island Life-Saving Station HSR*, 9.

2.63 Pfaller, *South Manitou Island Life-Saving Station HSR*, 27.

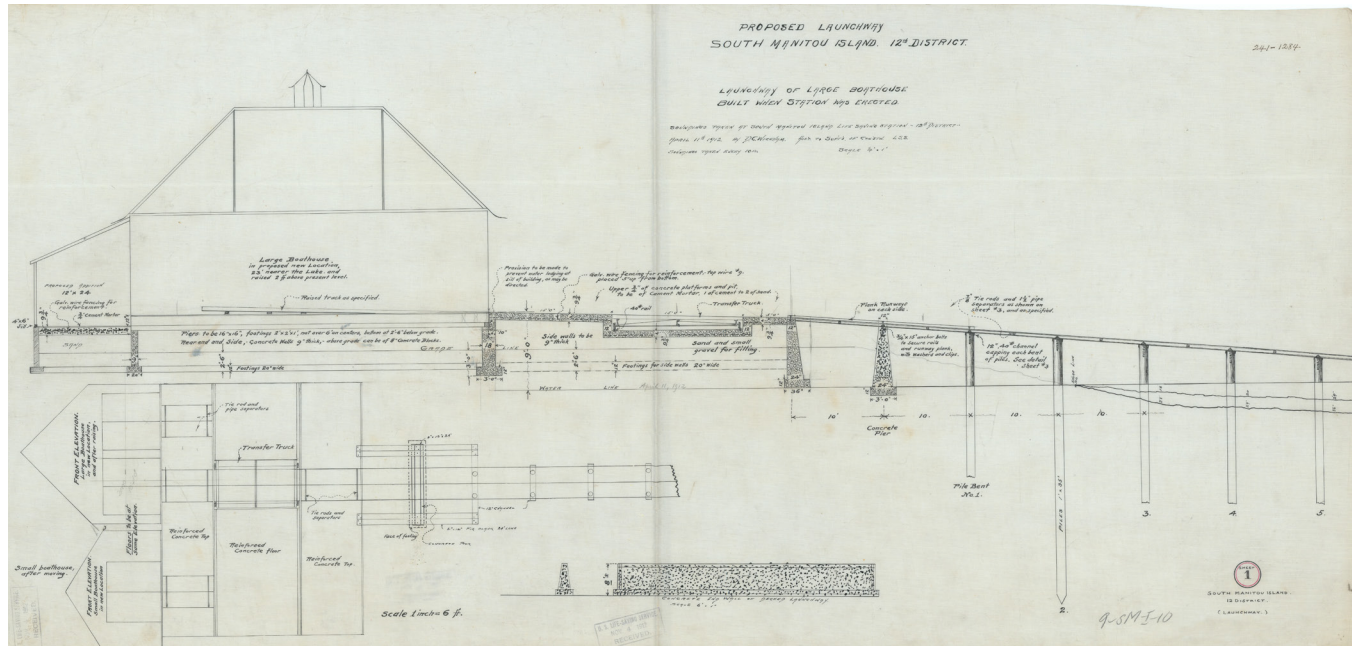


Figure 2-15. USLSS plans for a new incline and tracks at Boathouse #1 (source: National Archives, 1912).

1912

The USLSS developed plans for a new incline and tracks for Boathouse #1 and recommended locations for Boathouse #2 and Lighthouse Boathouse.

South Manitou Island Lifesaving Station crew built a privy vault at a new outhouse location. The outbuilding that originally housed the privy remained and was repurposed as a laundry building by 1927.^{2.66}

1914

A USLSS inspector reported that the launching facilities at South Manitou Island Lifesaving Station were in such poor condition that they were “an ornament at this point.”

1916

Harrison Haas built or relocated a former fish shanty, Haas Shed, for storage and workspace use.^{2.67}

c. 1914 to 1916

The Haas House and Furst House, two of three Montgomery Ward mail-order catalog houses in South Manitou Island Village, were built.^{2.68}

The original wooden flagstaff was replaced with the Storm Signal Tower and Flag Locker.^{2.64 2.65}

2.64 Pfaller, *South Manitou Island Life-Saving Station HSR*, 29.
 2.65 President McKinley ordered the Weather Bureau to implement a hurricane warning system for ships in 1898. The storm signal towers were known officially as Coastal Warning Display (CWD) towers and were added at Great Lake Stations in coordination with the Weather Bureau. The National Weather Service retired its CWD network nationwide on February 15, 1989, and on June 1, 2007, the U.S. Coast Guard formally re-established a Coastal Warning Display (CWD) program at select small boat stations.
 2.66 Pfaller, *South Manitou Island Life-Saving Station HSR*, 29.
 2.67 United States Department of the Interior, National Park Service. Haas Shed CRIS-HS Single Record Report. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2019).
 2.68 United States Department of the Interior, National Park Service. Haas House CRIS-HS Single Record Report. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2019); United States Department of the Interior, National Park Service. Furst House CRIS-HS Single Record Report. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2019).

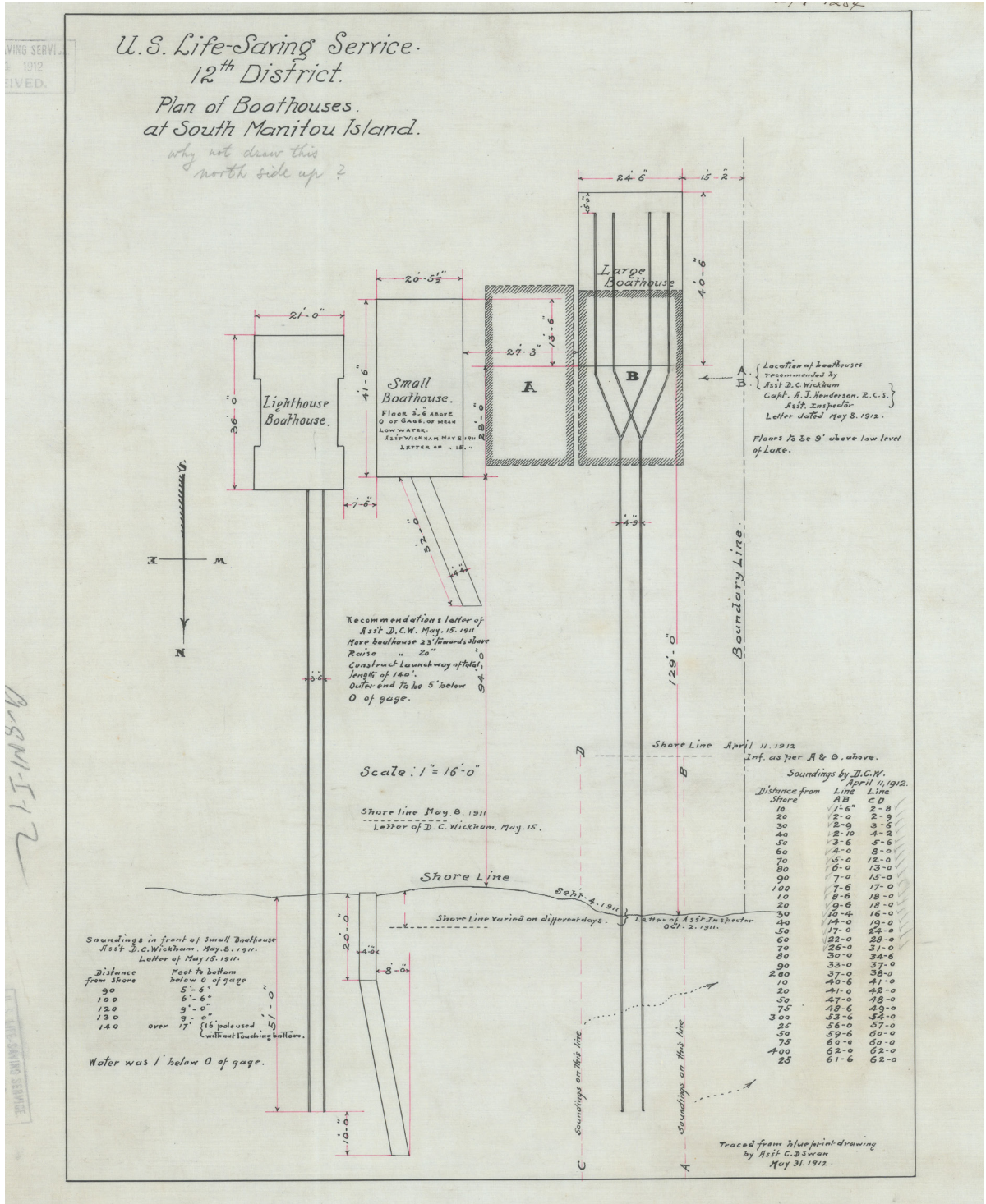


Figure 2-16. 1912 recommendations for locations of Boathouse #2 and Lighthouse Boathouse.

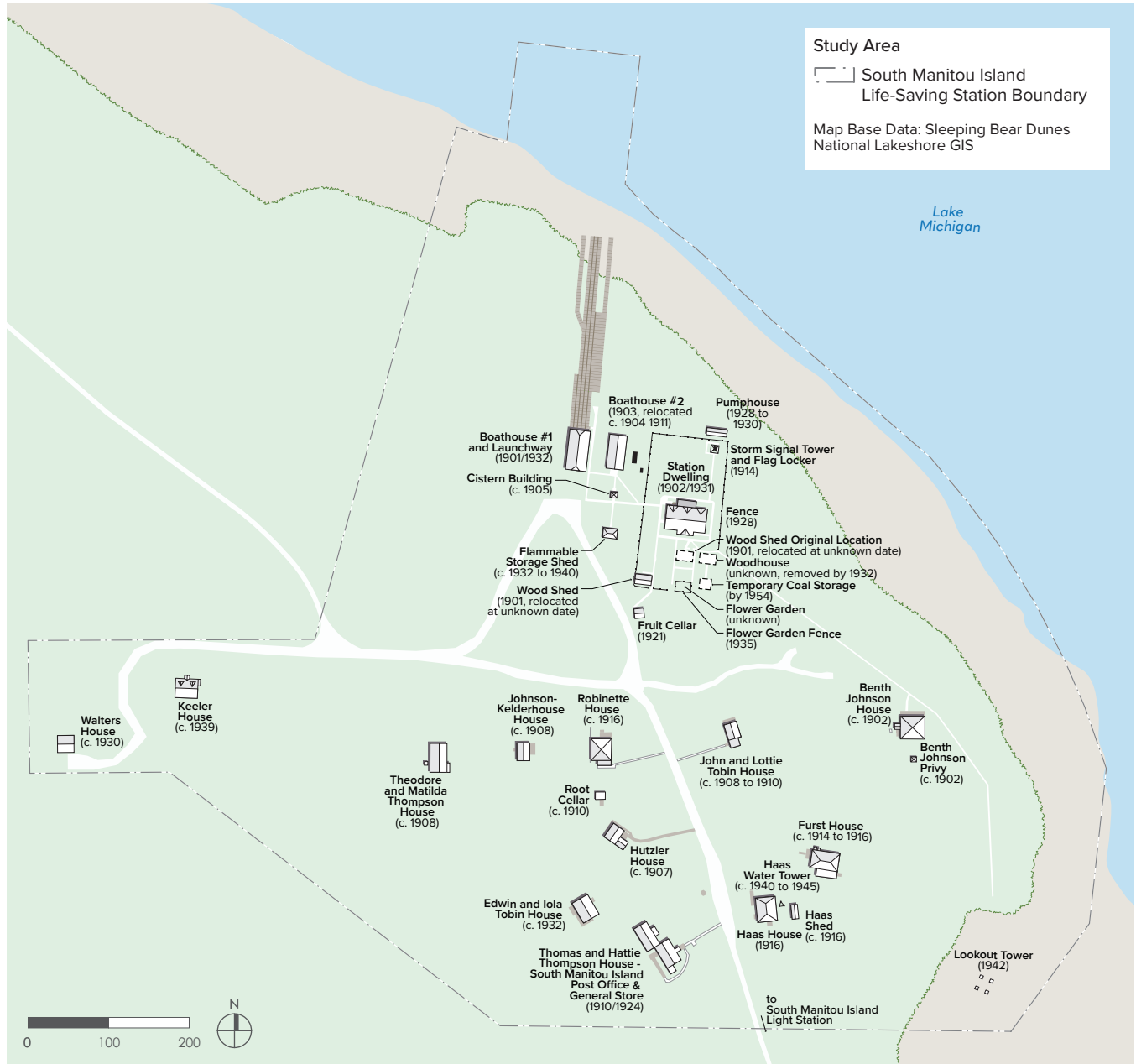


Figure 2-17. South Manitou Island Life-Saving Station and Village 1915 to 1958 (source: Mundus Bishop, 2025).

U.S. Coast Guard (1915 to 1958)

The USLSS merged with the U.S. Revenue Cutter Service in 1915, forming the USCG. Improvements by the USCG included the modernization of Station Dwelling and the addition of the Pumphouse, Flammable Materials Shed, Lookout Tower, Temporary Coal Storage, Fruit Cellar, and a fence surrounding the grounds of South Manitou Life-Saving Station.

The USLSS was the primary economic driver at South Manitou Island and offered career opportunities for its residents. South Manitou Island community members served at South Manitou Island Life-Saving Station and South Manitou Island Village, which expanded and provided a place for crew members and their families to live year-round. This included the addition of the Haas House, Furst House, Edwin & Lola Tobin House, Robinette House, Keeler House, and Walters House by 1958.

South Manitou Island Life-Saving Station became less important as modern equipment rendered life-saving stations obsolete. The USCG permanently closed South Manitou Island Life-Saving Station in 1958.

1915

A USLSS inspector reported South Manitou Island Life-Saving Station's lifeboat had not been in the water for two years, echoing 1914 condition assessments that indicated launching facilities were not functional.^{2.69}

c. 1916

Water from Lake Michigan washed the beach at the Lookout Tower away. South Manitou Island Life-Saving Station's crew relocated the Lookout Tower further inland.^{2.70}

The crew obtained materials to create a new launchway featuring a movable track that could be positioned in front of either boat at Boathouse #1. D.C. Wickam, the Field Assistant, inspected the launchway and reported that it was adequate; however, the outer length of the rails extending beyond the shoreline was unstable and needed replacement. He recommended a permanent extension of the landing track to extend it 60 feet beyond the shore. These recommendations were approved in 1917 and completed in 1918.^{2.71}



Figure 2-18. Coast Guard Lookout Tower after its relocation further inland, 1927 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

2.69 Pfaller, *South Manitou Island Life-Saving Station HSR*, 29.

2.70 Pfaller, *South Manitou Island Life-Saving Station HSR*, 28.

2.71 Pfaller, *South Manitou Island Life-Saving Station HSR*, 32.



Figure 2-19. Wood boardwalks through dune vegetation south of the station, pre-1915 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-20. The raising of the Boathouse #2, 1916 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-21. South Manitou Island Life-Saving Station before 1918 with Lombardy poplar trees planted along the perimeter of the Station Dwelling. The Station Dwelling had been painted white by the time this picture was taken. The Benth Johnson House, Benth Johnson Privy, and an undocumented outbuilding are to the right of the station (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-22. View of the station from South Manitou Harbor, 1926 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-23. Lombardy poplar trees planted along the perimeter of Station Dwelling with shrub foundation plantings, 1927 (source: Crowner_South Manitou Story_pages).



Figure 2-24. Boardwalks and outbuildings south-southeast of Station Dwelling, 1927 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-25. Lombardy poplar trees west of Station Dwelling, 1928 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

c. 1916

USLSS crewman Ray Robinette and his wife, Violet (Hutzler) Robinette built the Robinette House. Physical evidence suggests the home is a Montgomery Ward kit home shipped to South Manitou Island and assembled on site.^{2.72}

1921

South Manitou Island Life-Saving Station's crew built the Fruit Cellar south of the Wood Shed.^{2.73}

1922

South Manitou Island Life-Saving Station's crew built a concrete walk to the Fruit Cellar and laid a concrete floor in the building.^{2.74}

1924

James Burdick acquired the Thomas & Hattie Thompson House around 1920 and built a one-story addition with a gable roof on the east elevation of the house. "1924" is stamped in the concrete floor of the addition.^{2.75}

1928

South Manitou Island Life-Saving Station's crew built a new privy for the officer-in-charge. Documentation of its location does not exist. It was likely built near the southern property line of South Manitou Island Life-Saving Station.^{2.76}

1928 to 1930

South Manitou Island Life-Saving Station's crew built concrete posts for a chain fence around the lawn of Station Dwelling, a decorative archway over the path between the Station Dwelling and Boathouse #1, a chimney in the laundry building (likely Wood Shed), and the Pumphouse.^{2.77}



Figure 2-26. Gerry Crowner on concrete walks leading to Storm Signal Tower and Flag Locker, c. 1926-28 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

2.72 *South Manitou Island Light Station, Life-Saving Station, and Village Historic District*, 22.

2.73 Pfaller, *South Manitou Island Life-Saving Station HSR*, 32.

2.74 Pfaller, *South Manitou Island Life-Saving Station HSR*, 32.

2.75 United States Department of the Interior, National Park Service. *T-H Thompson Hse CRIS-HS Single Record Report*. Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2019.

2.76 Pfaller, *South Manitou Island Life-Saving Station HSR*, 33.

2.77 Pfaller, *South Manitou Island Life-Saving Station HSR*, 33.



Figure 2-27. The Storm Signal Tower and Flag Locker at the Station Dwelling, 1928 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-28. Concrete posts with a chain fence defining the perimeter of the lawn at the Station Dwelling, before 1932 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-29. Decorative archway over the path at the Station Dwelling, 1930 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-30. Walks and plantings along the primary facade of the Station Dwelling, undated (source: Notebook #1, Betty Kramer Collection, Leelanau Historical Society).



Figure 2-31. Boathouse #1, undated (source: Gerald E. Crowner, The South Manitou Story).



Figure 2-32. Boathouse #1 (right) and Boathouse #2 (left), undated (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

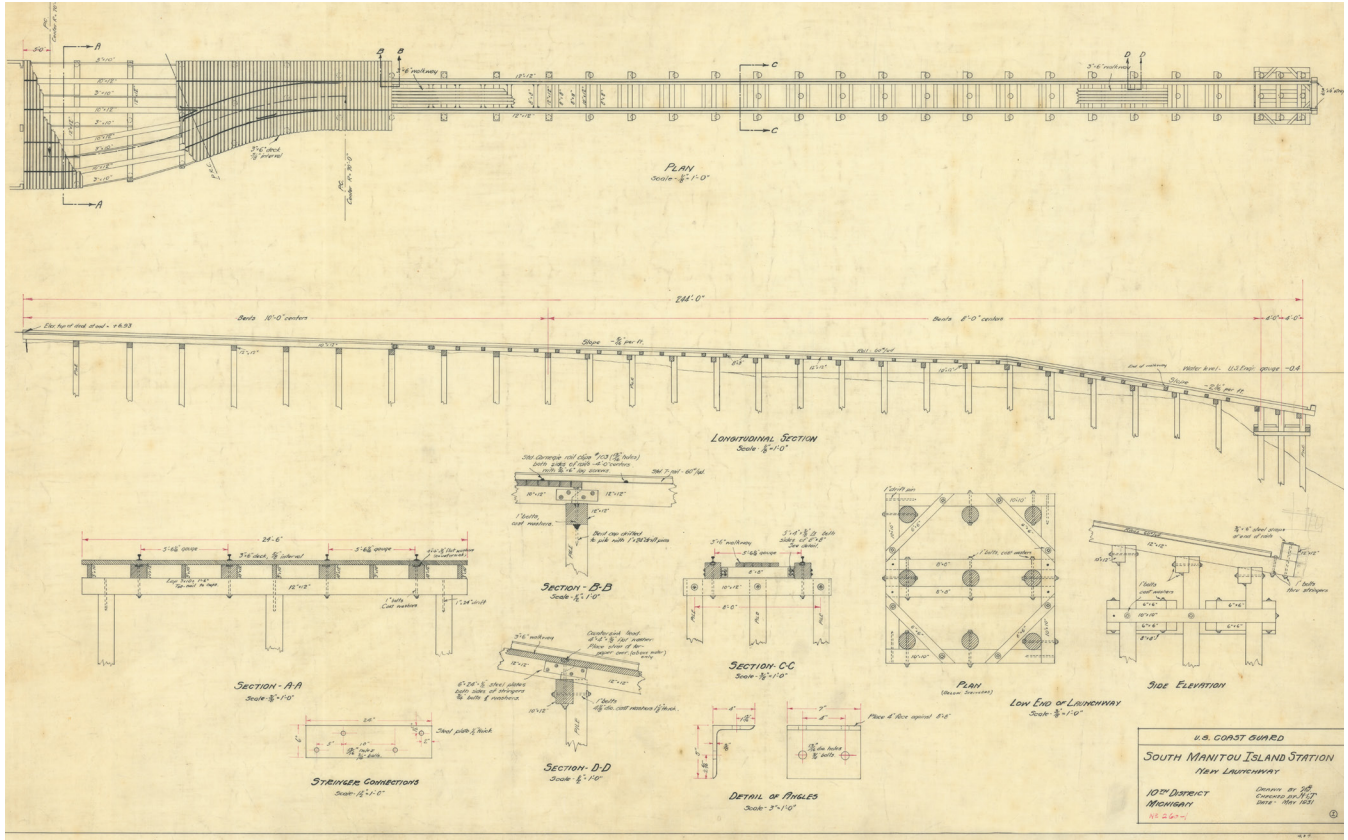


Figure 2-33. Plans for alterations and additions to the launchway at Boathouse #1, 1931 (source: National Archives).

c. 1930

USCG serviceman Earl Arthur Walters built the Walters House.²⁷⁸

1931

The USCG developed plans for alterations to Boathouse #1, including a 10'-0" addition and set on a concrete foundation at a site 25'-0" closer to shore. The plans also included a new 244'-0" Launchway set on wooden piles with two tracks for lifeboat carriages originating in the boathouse and merging into a single track on the dock. Defaut & Antonsen was awarded the contract in 1931 and a second contract later in the year to build a new pile bent dock to the right of the launchway.²⁷⁹

278 South Manitou Island Light Station, Life-Saving Station, and Village Historic District, 25.

279 Pfaller, South Manitou Island Life-Saving Station HSR HSR, 33.



Figure 2-34. Launchway set on wooden piles with two tracks for lifeboats and pile bent dock built in 1932 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-35. USCG 36' motor lifeboat, late 1930s (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-36. USCG motor lifeboat, 1932 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

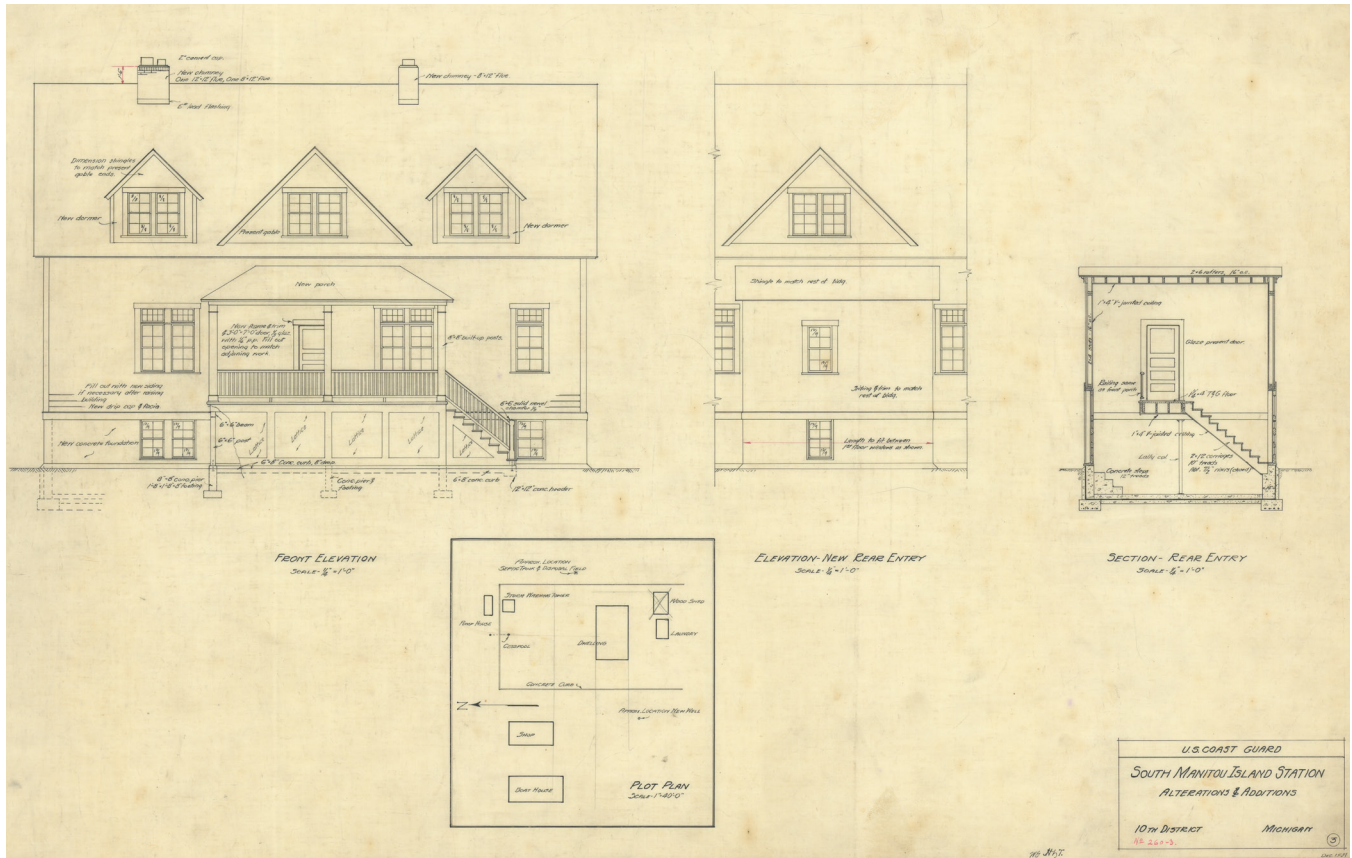


Figure 2-37. Plans for alternations and additions to modernize the Station Dwelling, 1932 (source: National Archives).

c. 1932

Edwin and Iola Tobin built the Edwin & Iola Tobin House, reportedly using material salvaged from a Hutzler family home. Iola taught school at the home.^{2.80}

and one large room. Two dormers were added in the attic story, front and back porches were replaced, and bathrooms were installed.^{2.81}

The USCG developed plans to modernize the Station Dwelling, and John Senesi was awarded the construction contract in 1932. This included raising the building and underpinning it with a concrete basement. The basement included a boiler room, coal bin, laundry and storm clothes room, generator and pump room,

2.80 South Manitou Island Light Station, Life-Saving Station, and Village Historic District, 21.
 2.81 Pfaller, South Manitou Island Life-Saving Station HSR, 33, 34.



Figure 2-38. Raised Station Dwelling with front porch, c. 1946 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 2-39. Steel Lookout Tower, after 1933 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

1932 (continued)

The USCG ordered a 25' tall steel Lookout Tower fabricated by McClintic-Marshall Corporation of Bethlehem, Pennsylvania, to replace the wooden Lookout Tower built in 1911 and relocated in 1916.^{2.82}

1933

South Manitou Island Life-Saving Station's crew, assisted by skilled labor, built a foundation and watchhouse for the new Lookout Tower. The crew laid a concrete walk to the new Lookout Tower, replacing a wooden walk that had led to the site. An outhouse was moved from South Manitou Island Life-Saving Station to the Lookout Tower.^{2.83}

2.82 Pfaller, *South Manitou Island Life-Saving Station HSR*, 35.

2.83 Pfaller, *South Manitou Island Life-Saving Station HSR*, 35.

1935

South Manitou Island Life-Saving Station's crew built an encasement around the water supply tank and a fence defining the perimeter of the flower garden south of the Station Dwelling.^{2.84}

1938

South Manitou Island Life-Saving Station's crew built the Flammable Storage Shed south of the Cistern Building and laid concrete over gasoline storage tanks.^{2.85}

1939

USCG serviceman Orie Keeler and his wife reportedly relocated a house, the Keeler House, from Muskegon, Michigan, to South Manitou Island.^{2.86}

1940

The USCG built a new launchway at Boathouse #1, funded by a special storm appropriation. G.W. MacLane, Commander of the Chicago District, had noted that the launchway was no longer functioning, and it was essential to South Manitou Island's community.^{2.87}

“The station life-boat will be maintained as it was last winter, moored to a permanent mooring buoy abreast of the station beyond shore ice. It is vitally necessary that the boat be retained at the station even though subjected to possible damage, as the residents on the island numbering about 65, are without other connection to the mainland, for mail, supplies or medical attention.”



Figure 2-40. Erosion at shoreline, winter 1946. Pumphouse and Storm Signal Tower and Flag Locker are in the background (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

2.84 NPS, *Life-Saving Station HSR*, 35, 79.

2.85 NPS, *Life-Saving Station HSR*, 35.

2.86 *South Manitou Island Light Station, Life-Saving Station, and Village Historic District*, 24.

2.87 NPS, *Life-Saving Station HSR*, 35.

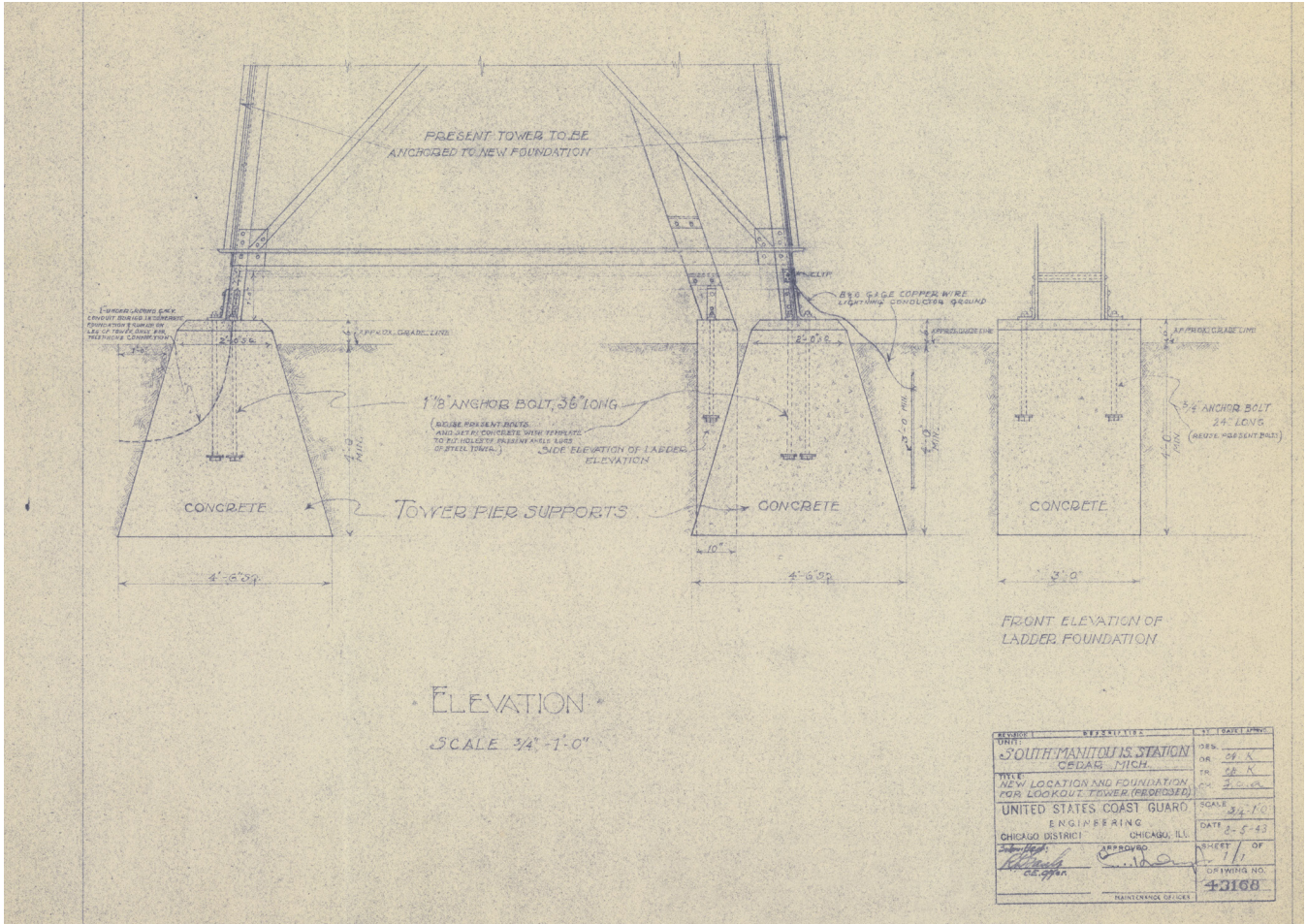


Figure 2-41. Concrete Lookout Tower foundation, 1943 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

c. 1940 to 1945

A former U.S. Weather Bureau Tower, originally built in c. 1914, was placed between the Haas House and the Haas Shed to store water.^{2.88}

1942

A second Lookout Tower was placed on the property of Benth Johnson. The concrete foundations for this Lookout Tower remain.^{2.90}

1941

The USCG appointed John D. Kirby, the last first Officer in Charge of South Manitou Island Life-Saving Station, on October 20, 1941.^{2.89}

2.88 United States Department of the Interior, National Park Service. *Haas Water Tower CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2019).
 2.89 NPS, *Coming through with Rye*, 46.
 2.90 NPS, *Life-Saving Station HSR*, 36.

National Park Service (1959 to present-day)

Technological advancements in maritime rescue equipment and the establishment of North Manitou Shoal Light led to the closure of South Manitou Island Life-Saving Station and Light Station in 1958. Sleeping Bear Dunes National Lakeshore, including South Manitou Island Life-Saving Station, was authorized by the U.S. Congress in 1970. Improvement by the NPS primarily addressed the repair and rehabilitation of buildings and structures.

1960s

Della Grosvenor built the Schwartz Cabin in the 1960s.^{2.92}

1968

Gerald E. Crowner visited South Manitou Island Life-Saving Station 10 years after its closure and 40 years after he had served at the station.

“...The poplar trees which were small, those years ago, are now tall and slender, overshadowing the Station proper. The old woodshed has long been torn down or moved and weeds and grass now cover its former site. Towards Warner’s house and our old lookout on the Point stretches a cement walk, which replaced the plank walk... All has been changed during these last forty years, but how wonderful is one’s memory...”

Gerald E. Crowner, September 1968^{2.93}

1970

Sleeping Bear Dunes was designated a national lakeshore on October 21, 1970.^{2.94}

1987

The NPS rehabilitated Boathouse #1 and Launchway for interpretation and visitor contact, the Flammable Storage Shed as a comfort station, and the Small Shed and Wood Shed for storage.^{2.95}

1989

The NPS rehabilitated the Benth Johnson House for park housing and the Thomas & Hattie Thompson House for interpretation and stabilized the Thompson Privy.^{2.96}

The NPS rehabilitated the John and Lottie Tobin House and the Johnson-Kelderhouse House.^{2.97}

2.92 NPS, *South Manitou Island Light Station, Life-Saving Station, and Village Historic District*, 25.

2.93 Vent, *South Manitou Island*, 101.

2.94 United States Department of the Interior, National Park Service. *North Manitou Island CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2022), 33.

2.95 United States Department of the Interior, National Park Service. *Boathouse 1 CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2018); United States Department of the Interior, National Park Service. *Flammable Storage Shed CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2018); United States Department of the Interior, National Park Service. *Small Shed CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2023); United States Department of the Interior, National Park Service. *Woodshed CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2023);

2.96 United States Department of the Interior, National Park Service. *Benth Johnson House CRIS-HS Single Record Report*. (Glen Arbor, Michigan: Sleeping Bear Dunes National Lakeshore, 2023); NPS. *T-H Thompson Hse CRIS-HS Single Record Report*, 2.

2.97 NPS, *Tobin House CRIS-HS Single Record Report*.

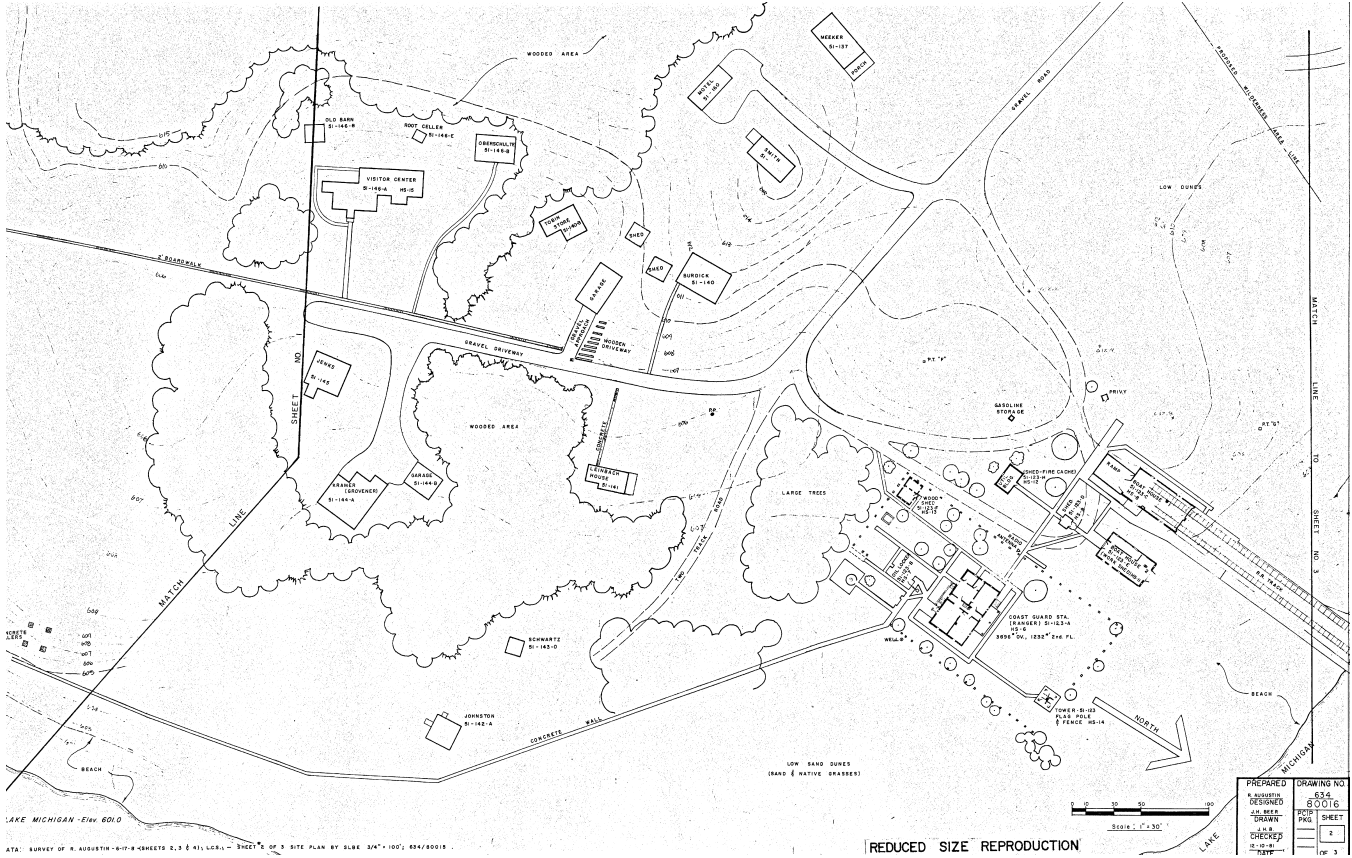


Figure 2-43. 1981 Existing Condition Plan (source: Sleeping Bear Dunes National Lakeshore).

1990

The NPS rehabilitated the Keeler House.^{2.98}

1992

The NPS rehabilitated the Station Dwelling and painted Boathouse #1.^{2.99}

1993

The NPS restored Boathouse #2.^{2.100}

1994

The NPS rehabilitated the Furst House, Hutzler House, and Robinette House.^{2.101}

2002

The NPS repaired the fence surrounding the Station Dwelling. This included repouring missing concrete piers, repairing metal chains, and replacing missing eye bolts.^{2.102}

2.98 South Manitou Island Light Station, Life-Saving Station, and Village Historic District, 25.

2.99 NPS, Boathouse 1 CRIS-HS Single Record Report.

2.100 NPS, Tobin House CRIS-HS Single Record Report.

2.101 NPS, Furst House CRIS-HS Single Record Report' NPS, South Manitou Island Light Station, Life-Saving Station, and Village Historic District, 22.

2.102 SLBE SMI USLSS Fence CRIS HS_SingleRecord_Report, 2.

2005

The NPS stabilized the Haas House, Haas Shed, and Benth Johnson Privy.^{2.103}

2008

The NPS rehabilitated the Edwin & Lola Tobin House.^{2.104}

2009

The NPS rehabilitated the Walters House.^{2.105}

2015

The NPS built the Vault Toilet south of the Haas House.^{2.106}

2024

The Great American Outdoors Act (GAOA) Legacy Restoration Fund allocated funding to address the impact of natural processes, such as littoral drift (shifting sands) and high water levels, on South Manitou Island’s existing dock. The NPS developed an Environmental Assessment (EA) to provide safe and reliable boat access to South Manitou Island. The following alternatives were developed.

- The no-action alternative would include maintenance and dredging at the existing dock on an as-needed basis, as funding allows. No new dock would be constructed.
- The action alternative (preferred) would improve boat access through the construction of a new pile-supported dock and demolition of the existing dock. The new dock would be built approximately 1 mile north of the existing dock at the site of a non-extant dock. The location would provide access to deep water and relatively protected conditions from wind and wave action.^{2.107}



Figure 2-44. Proposed location of new dock (source: Sleeping Bear Dunes National Lakeshore).

2.103 NPS, *SMI Benth Johnson Privy HS_SingleRecord_Report*; NPS, *SMI H Haas Hse HS_SingleRecord_Report*.

2.104 NPS, *South Manitou Island Light Station, Life-Saving Station, and Village Historic District*, 21.

2.105 *South Manitou Island Light Station, Life-Saving Station, and Village Historic District*, 26.

2.106 NPS, *South Manitou Island Light Station, Life-Saving Station, and Village Historic District*, 21.

2.107 National Park Service, *Sleeping Bear Dunes National Lakeshore: Improved Boat Access at the Manitou Islands Environmental Assessment*, (Empire, MI: National Park Service, 2024).

3

Existing Condition, Analysis, and Treatment



Figure 3-1. South Manitou Island Life-Saving Station and Village Existing Condition Plan (source: Mundus Bishop, 2025).

Introduction

This chapter presents evaluation, analysis, and treatment guidance for South Manitou Island Life-Saving Station and Village (the study area). This chapter describes the study area's existing condition and presents an analysis of its integrity according to the National Register of Historic Places' seven aspects of integrity. Treatment guidance is presented in this chapter to inform current and future planning and design.

Existing Condition

This assessment of the study area was undertaken to understand the study area as a whole; to identify and document qualities that contribute to its historic character; and to identify individual features that contribute to its significance. Site investigations completed in the summer of 2024 documented the existing condition of the cultural landscape. Existing condition is evaluated using the following criteria.

- **Good**—Those features of the landscape that do not require treatment. Only minor or routine maintenance is needed at this time.
- **Fair**—Some deterioration, decline, or damage is noticeable; the feature may require immediate intervention. If intervention is deferred, the feature will require extensive attention in a few years.
- **Poor**—Deterioration, decline, or damage is serious; the feature is seriously deteriorated, damaged, or presents a hazardous condition. Due to the level of deterioration, damage, or danger, the feature requires extensive and immediate attention.

Assessment of Integrity

This document evaluates South Manitou Island Life-Saving Station and Village according to landscape characteristics that include tangible and intangible aspects. These landscape characteristics collectively create the historic character of the district and aid in understanding its cultural significance. The following landscape characteristics are included.

- **Natural Systems** are natural aspects that have influenced the development and physical form.
- **Land Use** is the organization, form, and shape of the land in response to land use.
- **Spatial Organization** is the arrangement of elements creating the ground, vertical, and overhead planes that define and create space, including topography, buildings, and vegetation.
- **Topography** is the three-dimensional configuration of the landscape surface.
- **Views and Vistas** are features that create or allow a range of vision that can be natural or designed and controlled.
- **Circulation** are features and materials that constitute systems of movement.
- **Small Scale Features** are human-scaled elements that provide detail and function.
- **Buildings and Structures** are three-dimensional man-made constructs.
- **Vegetation** is indigenous or introduced trees, shrubs, vines, groundcovers, herbaceous materials, and natural vegetative cover.

Assessment of Integrity

This document evaluates South Manitou Island Life-Saving Station and Village according to landscape characteristics that are the tangible and intangible aspects of a cultural landscape. These landscape characteristics collectively create the historic character of the study area and aid in understanding its cultural significance.

Integrity is the ability of a cultural landscape to convey its significance. The study area was assessed to determine if the landscape characteristics that shaped the cultural landscape during the period of significance are present today. Integrity is evaluated according to seven aspects or qualities: location, setting, feeling, design, materials, workmanship, and association.³¹

The study area retains integrity through extant features and buildings, cluster arrangement, and circulation. It remains largely as originally designed by the U.S. Life-Saving Service (USLSS), U.S. Coast Guard (USCG), and village residents and retains integrity in location, setting, materials, workmanship, design, and association. The cultural landscape has diminished integrity in feeling.

Location is the place where the cultural landscape was constructed, or a historic event occurred.

The physical environment associated with the development of the life-saving station and its location along South Manitou Harbor, Lake Michigan, and Manitou Passage remains from the period of significance.

Setting is the physical environment of the cultural landscape.

The study area's historic setting retains integrity. Original relationships between South Manitou Island Life-Saving Station and Village, South Manitou Harbor, Lake Michigan, Manitou Passage, and beach and dune landscapes remain. Village development evolved throughout the period of significance. The setting is modified by the removal of buildings and establishment of woodland vegetation throughout South Manitou Island Life-Saving Station and Village.

Feeling is the cultural landscape's expression of the aesthetic or historic sense of a particular period of time.

The study area retains the original remote character of South Manitou Island, views to Lake Michigan and Manitou Passage, and features of when it was designed and built. It is no longer an active life-saving station or village, and the feeling of an active community and working landscape no longer remains.

Materials are physical elements that were combined or deposited during the period(s) of time and in a particular pattern or configuration to form the cultural landscape. Workmanship includes the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.

Materials from original construction and in situ archeological deposits remain from the period of significance. Contributing features associated with the cultural landscape retain the simple material palette of the USLSS and USCG and Village houses. This includes a simple material palette of concrete, stone, and wood used in both buildings and circulation routes, and Lombardy poplar trees planted in uniform rows. Contemporary additions have continued to use this simple material palette and workmanship aesthetic.

3.1 NPS, *The Secretary of the Interior's Standards for Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.

Design is the combination of elements to create the form, plan, space, structure, and style of the cultural landscape.

The study area retains integrity of design. The cultural landscape retains its original arrangement of buildings and structures as a series of working spaces, connected by a series of orthogonal walks and a series of house sites connected by two primary access routes, walks, and trails.

Association is the direct link between an important historic event or person and a cultural landscape.

The cultural landscape retains integrity of association with the USLSS and USCG, through the extant designed landscape and buildings, and Village houses.

Contributing Features

Contributing features are individual elements or landscape characteristics extant from the period of significance that contribute to the cultural landscape of South Manitou Island Life-Saving Station.

Non-contributing features do not contribute to the district either because they were not present during the period of significance, do not relate to the documented significance of the property, no longer possess historical integrity, or are not capable of yielding important information relevant to the significance of the property.

Table 3-1. Contributing and Non-Contributing Features

Feature	Contributing / Non-Contributing
Relationship between historic buildings and South Manitou Harbor, Lake Michigan, and Manitou Passage	Contributing
Settings of historic buildings	Contributing
View to South Manitou Harbor and Lake Michigan	Contributing
View to South Manitou Island Life-Saving Station	Contributing
South Manitou Island Life-Saving Station Walks	Contributing
South Manitou Island Life-Saving Station to Lookout Tower Foundation Walk	Contributing
Sand and Gravel Routes	Contributing
Boathouse #1 and Launchway	Contributing
Boathouse #2	Contributing
Cistern Building (Small Shed)	Contributing
Flammable Storage Shed	Contributing
Lookout Tower Foundation	Contributing
Storm Signal Tower and Flag Locker	Contributing
Station Dwelling	Contributing
Wood Shed	Contributing
Benth Johnson House	Contributing
Benth Johnson Privy	Contributing
John and Lottie Tobin House	Contributing
Furst House	Contributing
Haas House	Contributing
Haas Shed	Contributing
Haas Water Tower	Contributing
Thomas and Hattie Thompson House-South Manitou Island Post Office and General Store	Contributing
Thompson Privy	Contributing
Thompson Root Cellar	Contributing
Edwin and Iola Tobin House	Contributing
Hutzler House	Contributing
Robinette House	Contributing
Root Cellar	Contributing

Table 3-1. Contributing and Non-Contributing Features (continued)

Feature	Contributing / Non-Contributing
Johnson-Kelderhouse House	Contributing
Theodore and Matilda Thompson House	Contributing
Keeler House	Contributing
Walters House	Contributing
Schwarz Cabin	Non-Contributing
Vault Toilets	Non-Contributing
South Manitou Island Life-Saving Station Fence	Contributing
Station Dwelling Garden Fence	Contributing
Telephone Poles	Contributing
South Manitou Island Life-Saving Station Contemporary Features	Non-Contributing
Study Area House Sites Contemporary Features	Non-Contributing
Lombardy Poplar Trees	Contributing
Vegetable Garden	Contributing
Lawn and Low Grasses	Contributing



Figure 3-2. South Manitou Island Life-Saving Station and Village Treatment Plan (source: Mundus Bishop, 2025).

Treatment

This chapter presents treatment guidance to inform current and future planning and design for South Manitou Island Life-Saving Station and Village. General treatment guidance provides actions and recommendations to guide the rehabilitation of the study area. Detailed treatment guidance is provided for site design and individual landscape characteristics—natural systems and features, land use, spatial organization, circulation, buildings and structures, small scale features, and vegetation.

Guidance is based upon review of historical documentation, assessment of existing condition, analysis of integrity, and application of the Secretary of Interior’s standards and guidelines as they apply to the treatment of historic landscapes. Treatment recommendations address management goals presented in Chapter 1, which includes protection of natural and cultural resources and additions for contemporary use.

This treatment guidance supports the rehabilitation through preservation and repair of contributing features and historic character, conservation of the natural landscape, and addition of appropriate compatible features.

Treatment Goals

The following goals assist in determining the desired landscape condition and appropriate stewardship guidance for protecting the character and ambiance of the cultural landscape.

- Provide an overall rehabilitation plan for circulation, views and vistas, vegetation, and small scale features.
- Preserve extant contributing features.
- Identify opportunities for introducing compatible scale features in the landscape, including ABAAS compliant features and routes.
- Manage non-contributing ornamental tree and shrub species.

Rehabilitation Treatment Approach

The selected treatment for South Manitou Island Life-Saving Station and Village is rehabilitation. This treatment approach emphasizes preservation of the study area and allows for the repair and addition of compatible improvements.

Rehabilitation is defined as the act or process of making possible a compatible use through repairs, alterations, or additions if those portions or features that convey its historic, cultural or architectural values are preserved.

Rehabilitation allows for new additions to be integrated within the cultural landscape in a manner that preserves established patterns, spaces, features, and scale of the historic station. Additional actions include those that preserve, restore, or repair contributing features and qualities that contribute to the study area’s historic character.

All future work planned for the study area will be guided by *The Secretary of the Interior’s Standards for the Treatment of Cultural Landscapes*. Appendix A summarizes terminology used in this CLR to describe recommended actions.

Vision

The overall vision is to enhance the understanding and legibility of the study area as an active life-saving station and village, and to improve functionality of the study area for NPS administrative and visitor use.

Treatment recommendations emphasize the historic design of the study area as an active life-saving station and village. Treatment recommendations identify locations where rehabilitation is needed to reveal historic features, retain character, and maintain integrity.

Rehabilitation will reveal components of the original landscape to enhance visitor understanding of daily activities associated with rescue and the community of South Manitou Island Village.

Treatment Guidance

Treatment guidance directs the rehabilitation of South Manitou Island Life-Saving Station and Village as a whole. These recommendations provide holistic guidance to protect significant cultural resources, repair contributing features, reestablish important views, and repair settings.

Education, Outreach, and Interpretation Recommendations

Continue to develop on-site and web-based resources to share values, stories, and connections to South Manitou Island Life-Saving Station and Village.

Consider interpretive measures to allow visitors to experience the community of South Manitou Island Life-Saving Station and Village and envision non-extant or below grade features of the study area by listening to oral histories and/or viewing digital media.

Climate Trends, Vulnerabilities, and Impacts

Treatment guidance provided in this report addresses resources that are currently or potentially threatened by these climate-driven environmental changes. These include warmer temperatures throughout the year, more extreme temperatures, increased and highly variable annual precipitation, and more intense and severe precipitation events.^{3.2}

Extreme Temperatures: The number of extreme temperature days each year and average annual temperatures are projected to increase. Climate models project significant warming by 2050 with projected increases in average annual temperature ranging from +2.9 °F to +9.6 °F.^{3.3}

Potential impacts to the study area could lead to the accelerated weathering of structures and buckling and cracking of paved surfaces.

Vegetation: Small changes in temperatures may cause major shifts in vegetation.

Potential impacts include shifts in the composition of vegetation on South Manitou Island.

Invasive species and pests: Changing environmental conditions will accelerate the introduction and spread of invasive species. Extreme weather events may stress native species and create opportunities for invasive species to establish.

Potential impacts included increased invasive species and pests, shifts in the composition of vegetation, and damage to cultural resources by vegetation.^{3.4}

Storm Events (wind and precipitation): The frequency and severity of storms, precipitation, and wind are likely to intensify. Rainfall during the four wettest days of the year has increased by 35 percent.^{3.5}

Potential impacts from increased storm events include flood inundation, soil erosion, and shoreline erosion.

Increased and Variable Precipitation: Average annual precipitation is projected to be highly variable with considerably drier and also wetter years than historically recorded.^{3.6}

Potential vulnerabilities include increased flood inundation and shoreline erosion, decreased ecosystem health associated with drought and floods, loss of drought-intolerant species, wildfires, decreased water quality, and loss or damage to infrastructure associated with floods and rising lake levels.

Water Levels: The impact on water levels in Lake Michigan is not yet known. Water levels have historically fluctuated in Lake Michigan. Higher precipitation contributes to higher-than-average water levels, while warmer surface water temperatures contribute to increased rates of evaporation, leading to lower water levels.^{3.7}

Potential impacts of increased fluctuations in water levels may accelerate the deterioration of crib/building material exposed during low water conditions and submerged during high water conditions.

3.2 United States Department of the Interior, National Park Service. *Sleeping Bear Dunes National Lakeshore Climate Futures Study*. (Fort Collins, CO: National Park Service Climate Change Response Program, 2024).

3.3 NPS. *Sleeping Bear Dunes National Lakeshore Climate Futures Study*, 3.

3.4 NPS. *Sleeping Bear Dunes National Lakeshore Climate Futures Study*, 11.

3.5 United States Environmental Protection Agency. *What Climate Change Means for Michigan*. (Washington, DC: U.S. Global Change Research Program and U.S. Climate Change Science Program, 2016).

3.6 NPS. *Sleeping Bear Dunes National Lakeshore Climate Futures Study*, 5.

3.7 "Climate Change Indicators: Great Lakes Water Levels and Temperatures," EPA, accessed July 19, 2024, <https://www.epa.gov/climate-indicators/great-lakes>.



Figure 3-3. South Manitou Island Life-Saving Station and Village Natural Systems and Features Existing Condition (source: Mundus Bishop, 2025).

Natural Systems and Features

Natural systems and features are important character-defining features and remain from the period of significance. Lake Michigan and the ecotypes of the study area—beach and dune complex, meadow, and managed lawns and gardens—contribute to its significance.

Existing Condition

Sleeping Bear Dunes National Lakeshore spans 35 miles of Lake Michigan’s coastline on the lower peninsula of Michigan near Traverse City, and North and South Manitou Islands. The national lakeshore is set within the Central Lowland physiographic province. The province extends from western New York to North Dakota and south to Texas. The national lakeshore is relatively flat and characterized by rolling hills and fertile plains, primarily shaped by glacial and post-glacial processes.

South Manitou Island is part of a 14-island archipelago extending northward within northeastern Lake Michigan. The chain of islands formed over a limestone ridge covered by glacial overburden material or moraine (e.g., rocks, gravel, sand, silt, and clay). Rising waters, waves, and wind in Lake Michigan have shaped and re-shaped the island archipelago into its current forms after the retreat of the last glacial ice sheet from the region.^{3,8}

The landforms of South Manitou Island consist of rolling hills, narrow valleys, steep bluffs and escarpments, sand dunes, beaches, spits, and one interior lake—Florence Lake.

The littoral movement of the study area is generally south to north. Sand is transported towards the center of South Manitou Harbor.

The topography of the study area rises from Lake Michigan and is nearly uniform, gently sloping upwards to the north and west. Soils of the study area are classified as either Lake Beach or Dune Complex, which are both weakly developed soils with undeveloped horizons. The landform and incipient soils of the study area are indicative of a historically active and changing shoreline.

Active management of the study area has reduced the ecological communities to three ecotypes—beach and dune complex, dry woodland, and managed lawns and gardens.

Beach and Dune Complex

Beach and dune complex covers land approximately 50’ to 25’ from the shoreline. This complex is consistent with the open dunes community as defined by the Michigan Natural Features Inventory and is subject to near continuous wind and wave energy from Lake Michigan. Shoaling is also part of this overall complex, as, over time, sand and organic matter are transported into and out of the system.^{3,9}

The beach and dune complex is important habitat for the Pitcher’s thistle (*Cirsium pitcher*), a federal and state threatened species.

The widest portion of the complex is subdivided into three distinct zones—beach, dune, and back-beach. The beach zone is adjacent to Lake Michigan and is affected the most by coastal processes and sediment transport. The zone is sparsely to moderately vegetated with American beachgrass (*Ammophila breviligulata*) as the dominant species, with additional plants expanding into the zone from the more stable dune zone, including beach pea (*Lathyrus japonicus*),

3.8 NPS, *History of Agricultural Landscapes*; NPS, *Coming through with Rye*.

3.9 Cohen, J.G., M.A. Kost, B.S. Slaughter, D.A. Albert, J.M. Lincoln, A.P. Kortenhoven, C.M. Wilton, H.D. Enander, and K.M. Korroch. 2020. Michigan Natural Community Classification [web application]. Michigan Natural Features Inventory, Michigan State University Extension, Lansing, Michigan. Available <https://mnfi.anr.msu.edu/communities/classification>. (Last accessed: December 5, 2024).; Kost, M.A., D.A. Albert, J.G. Cohen, B.S. Slaughter, R.K. Schillo, C.R. Weber, and K.A. Chapman. 2007. Natural Communities of Michigan: Classification and Description. Michigan Natural Features Inventory, Report #2007-21, Lansing, MI.

bladder campion (*Silene vulgaris*), common silverweed (*Argentina anserina*), and deer tongue (*Dichanthelium* spp.).

The dune zone is an area of relatively stable, accumulated sand pushed landward by wind and waves. The back-beach zone, set behind the dune zone, is relatively stable and less susceptible to consistent coastal processes but subject to irregular flooding. These zones are dominated by American beachgrass and other grasses, sedges, forbs, and woody plants. Common species include deer tongue, sedges (*Carex* spp.), beach pea, common silverweed, yellow salsify (*Tragopogon dubis*), great mullein (*Verbascum thapsus*), northern white cedar (*Thuja occidentalis*), smooth rose (*Rosa blanda*), and poison ivy (*Toxicodendron radicans*).

Beach and Dune complex provides important shorebird and waterfowl habitat. Several areas of South Manitou Island beach provide habitat for Piping Plover (*Charadrius melodus*), a federal and state threatened species. Other common shorebirds and waterfowl include Spotted Sandpiper (*Actitis macularis*), Ring-billed Gull (*Larus delawarensis*), Caspian Tern (*Hydroprogne caspia*), Killdeer (*Charadrius vociferus*), Common Merganser (*Mergus merganser*), Great Blue Heron (*Ardea herodias*), and Mallard (*Anas platyrhynchos*).^{3,10}

Dry Woodland

Dry woodland is interspersed throughout the study area and is consistent with the wooded dune and swale complex community defined by Michigan Natural Features Inventory. The community is a series of parallel upland beach ridges and wetland swales. The study area's historic foredunes exist as remnants of back-dune communities fragmented by site development and alteration.

Dry woodlands are characterized by a layered canopy coverage. The upper canopy layer consists of several tree species, including jack pine (*Pinus banksiana*), white pine (*Pinus strobus*), balsam fir (*Abies balsamea*), paper birch (*Betula papyrifera*), and white cedar (*Thuja occidentalis*). The shrub layer includes red osier dogwood (*Cornus sericea*), Canada buffalo-berry (*Chepherdia canadensis*), creeping juniper (*Juniperus horizontalis*), smooth rose (*Rosa blanda*), smooth shadbush (*Amelanchier laevis*), staghorn sumac (*Rhus typhina*), and sand dune willow (*Salix cordata*). The ground layer includes Solomon's plume (*Maianthemum racemosum*), sheep's sorrel (*Rumex acetosella*), poison ivy (*Toxicodendron radicans*), common St. John's wort (*Hypericum perforatum*), Canada bluegrass (*Poa compressa*), Virginia strawberry (*Fragaria virginiana*), and wintergreen (*Gaultheria procumbens*).

The variability in canopy cover and diversity of species through the community provides habitat to a wide range of animal species, including Meadow voles (*Microtus pennsylvanicus*), mice (*Peromyscus* spp.), weasels (*Mustela* spp.), and snowshoe hare (*Lepus americanus*). Notable birds include American redstart (*Setophaga ruticilla*), Chestnut-sided warbler (*Setophaga pensylvanica*), Black-throated blue warbler (*Setophaga caerulescens*), Cedar waxwing (*Bombycilla cedrorum*), Wood thrush (*Hylocichla mustelina*), veery (*Catharus fuscescens*), Red-eyed vireo (*Vireo olivaceus*), and merlin (*Falco columbarius*).

3.10 eBird. 2024. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Available: <http://www.ebird.org>. (Last accessed: December 5, 2024); iNaturalist. 2024. Available from <https://www.inaturalist.org>. (Last accessed: November 20, 2024).

Managed Grassland and Garden

Managed lawn and garden areas are not considered a natural community but are ubiquitous in developed areas. The community includes lawn areas planted with cool season grasses that are regularly mown and native and non-native shade trees, ornamental trees, fruit trees, shrubs, and other flowering plants.

Common lawn grasses include fescues (*Festuca* spp.) and bluegrasses (*Poa* spp.). Clover (*Trifolium* spp.), plantain (*Plantago* spp.), dandelion (*Taraxacum officinale*), crabgrass (*Digitaria* spp.) and various tree and shrubs species including black locust (*Robinia pseudoacacia*), butternut hickory (*Carya cordiformis*), sugar maple (*Acer saccharinum*), red oak (*Quercus rubra*), white cedar (*Thuja occidentalis*), Norway maple (*Acer platanoides*), apple (*Malus* spp.), cherry (*Pyrus* spp.), steeplebush (*Spirea* spp.), and lilac (*Syringa vulgaris*) are interspersed within lawn and garden areas.

The community provides habitat to a range of species including insects like monarch butterfly (*Danaus plexippus*), eastern rhinoceros beetle (*Xyloryctes jamaicensis*); birds such as Barn swallow (*Hirundo rustica*), Indigo bunting (*Passerina cyanea*), Tufted titmouse (*Baeolophus bicolor*), Song sparrow (*Melospiza melodia*), Black-capped chickadee (*Poecile atricapillus*), and House sparrow (*Passer domesticus*); reptiles like the common garter snake (*Thamnophis sirtalis*); and mammals such as eastern chipmunk (*Tamias striatus*), mice (*Peromyscus* spp.), and coyote (*Canis latrans*).^{3.11}



Figure 3-4. Beach and dune complex (source: Mundus Bishop, 2024).



Figure 3-5. Dry woodland complex (source: Mundus Bishop, 2024).



Figure 3-6. Managed grassland and garden complex (source: Mundus Bishop, 2024).



Figure 3-7. The protected beach and deep natural harbor of South Manitou Island are a characteristic feature of the cultural landscape and remain similar to the period of significance (source: Mundus Bishop, 2025).

Analysis

Natural systems and features are a characteristic feature of the cultural landscape and remain similar to the period of significance. South Manitou Island Life-Saving Station was located on a protected beach with a deep natural harbor. South Manitou Island Life-Saving Station and Village buildings were arranged with clear lines of sight to Lake Michigan and South Manitou Harbor. Lake Michigan, South Manitou Harbor, beach and dune complex, dry woodland, and managed lawns and gardens contribute to the historic character of the study area.

Natural systems and features are modified by the establishment dry woodland vegetation in the historically open settings of house sites and lands between the house sites and South Manitou Life-Saving Station buildings after the period of significance.

Treatment

The setting and natural system and features of the study area that contribute to its historic character will be preserved and protected. This includes Lake Michigan and the ecotypes of the study area—beach and dune complex, meadow, managed lawns and gardens—and relationships from South Manitou Island Life-Saving Station and Village to the surrounding natural features.

Continue to monitor and remove non-native plant species in the beach and dune complex. Protect threatened and endangered species.

Protect and enhance federally listed species known to be present in the study area, including pitcher's thistle (*Cirsium pitcheri*) and Piping Plover (*Charadrius melodus*). Conduct regular field surveys to verify known and record new occurrences of pitcher's thistle and piping plover. Manage Lombardy poplar trees as invasive species within the beach and dune zone.

Re-evaluate vegetation management practices periodically to incorporate best available science, lessons learned from internal experience and external resources (NPS, USFWS, other jurisdictions, etc.), and

new research, trends, and mitigation strategies of changing environmental conditions.

Monitor littoral drift for aggradation and degradation of habitat around the island. A loss of beach or dune in one area may be replaced elsewhere. However, in anticipation of imminent net loss of federally listed species habitat or individuals, a management plan should be in place and implemented as necessary. The management plan may include habitat stabilization or creation, or species transplantation.

Prioritize native, non-horticultural species that support or enhance multiple ecological functions such as milkweed (*Asclepias spp.*) for monarch butterflies.

Land Use

Land use within the study area has changed since the closure of South Manitou Island Life-Saving Station and the subsequent establishment of Sleeping Bear Dunes National Lakeshore. The continued use of Station Dwelling and South Manitou Island Village houses for park housing has retained the historic use of the study area.

Existing Condition

South Manitou Island Life-Saving Station is within Sleeping Bear Dunes National Lakeshore and is owned and managed by the NPS. Land use includes park housing, park storage/administrative, interpretation, and privately-owned recreational housing. The Station Dwelling is used as a Ranger Station and provides housing for park staff and volunteers. The NPS displays a historic Monomoy surfboat at Boathouse #1, and uses Boathouse #2 as a gym and storage. The Flammable Storage Shed has been rehabilitated as a comfort station.

Analysis

Use of the study area has changed since the period of significance. The establishment of Sleeping Bear Dunes National Lakeshore introduced new uses to support NPS and visitor use of the study area. Uses historically associated with lifesaving and the daily operations of the working life-saving station are no longer present. When the USCG ceased operations, the site no longer served its founding mission to rescue boats and crewmen on Lake Michigan.

Use during the period of significance included daily activities associated with a working life-saving station—crew housing, lifesaving drills, standing watch, and performing regular maintenance and upkeep of the life-saving station.

South Manitou Island Village housing use remains similar to the period of significance.

Treatment

The cultural landscape will be protected and historic uses associated with the Station Dwelling and village houses will be protected to continue to provide housing and storage/administrative uses. Uses to support administrative and interpretation and visitor contact will be maintained to aid in the function of site and interpretation associated with rescue.

Preserve historic land use patterns and features. Repair features, spaces and patterns that express historic land use.

Preserve uses that assist in the interpretation of the working life-saving station—interpretation and visitor contact at Boathouse #1 and Launchway and Boathouse #2.

Design and locate new day use or interpretive features to minimize disruption to historic land use patterns and features.

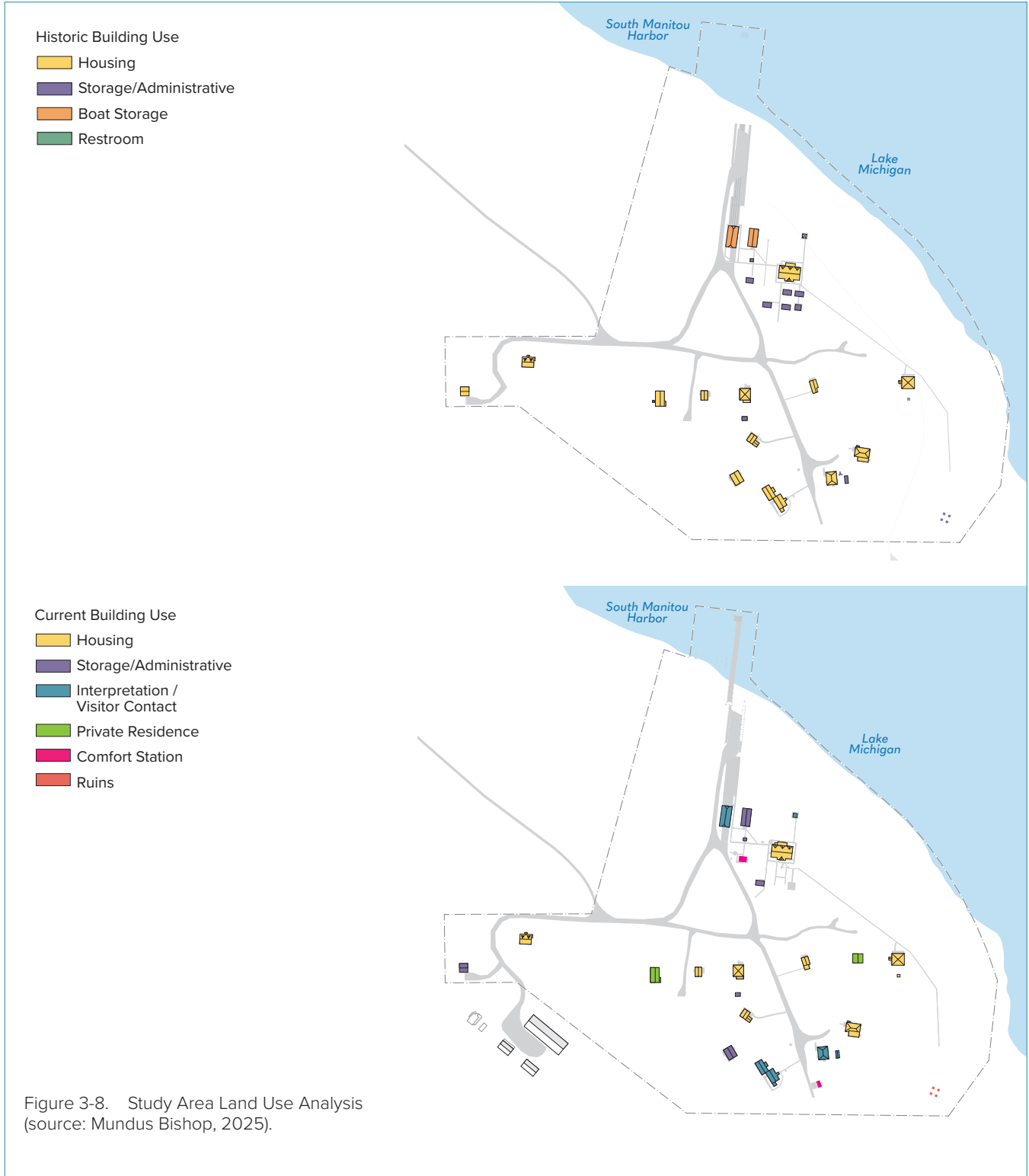


Figure 3-8. Study Area Land Use Analysis (source: Mundus Bishop, 2025).

Spatial Organization, Topography, and Views

South Manitou Island Life-Saving Station is characterized by its compact cluster of development organized along a grid and set along the edge of South Manitou Harbor to Lake Michigan and Manitou Passage. South Manitou Island Village is characterized by its linear cluster of development arranged along two central routes with house sites set at irregular setbacks and orientations. The study area retains its original cluster of development and relationship to Lake Michigan.

South Manitou Island Life-Saving Station Existing Condition

South Manitou Island Life-Saving Station is arranged as a well-defined cluster of development along South Manitou Harbor, with buildings oriented to the water and South Manitou Island Light Station and Village to the south. The Station Dwelling is prominently set near the center of the site with Boathouse #1 and Boathouse #2 to the west, the Storm Signal Tower and Flag Locker to the north, and several outbuildings to the south. A walk connects South Manitou Island Life-Saving Station to the Lookout Tower Foundation, which is set 700' southeast of the Station Dwelling on the shore of Lake Michigan.

Buildings are arranged on a grid with primary facades oriented towards South Manitou Harbor and Lake Michigan, with walks providing direct connections between the buildings. Lawn surrounds Station Dwelling and is enclosed by a perimeter fence. The overall appearance of the cultural landscape reflects a formal military aesthetic of trimmed lawns, orthogonal organization, and clear lines of sight.

The topography at buildings is primarily level with a steep drop along the eroding shoreline of South Manitou Harbor.

Primary views include views from South Manitou Life-Saving Station to South Manitou Harbor, Lake Michigan, Manitou Passage; views between station buildings; and views from South Manitou Island Village to South Manitou Life-Saving Station and South Manitou Harbor.



Figure 3-9. Views from Lake Michigan to the station (source: Mundus Bishop, 2024).



Figure 3-10. Views from the study area to Lake Michigan (source: Mundus Bishop, 2024).

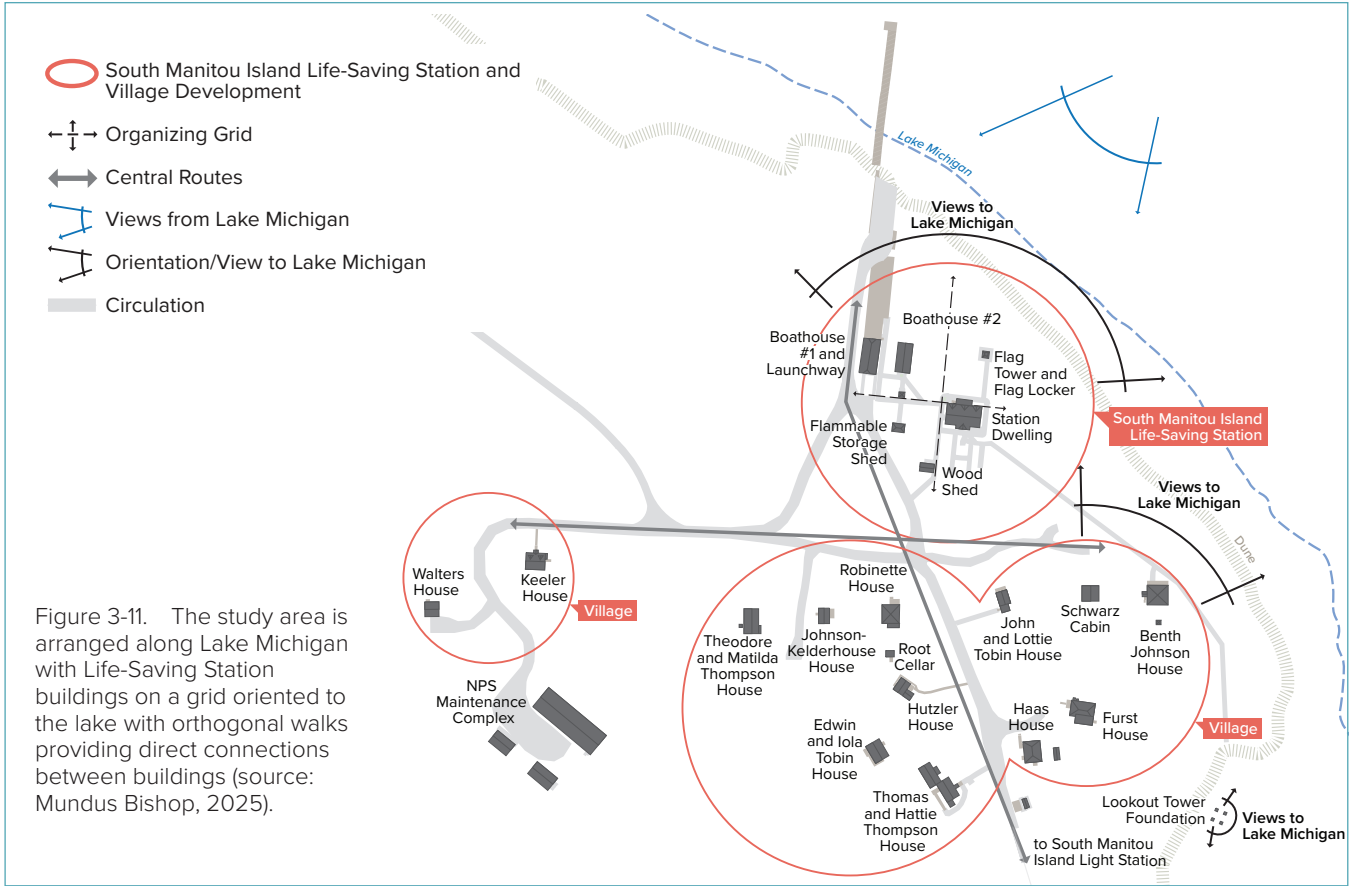


Figure 3-12. Building orientation to South Manitou Harbor and Lake Michigan (source: Mundus Bishop, 2024).

South Manitou Island Village Existing Condition

South Manitou Island Village is arranged in a linear cluster south of South Manitou Island Life-Saving Station with physical and visual connections between house sites, South Manitou Island Life-Saving Station, and Lake Michigan. South Manitou Island Village is organized along two central routes with house sites set at irregular setbacks and orientations to routes between South Manitou Lighthouse and Life-Saving Stations.

Benth Johnson House

The Benth Johnson House is set along Lake Michigan within a small clearing with dense woodland and a privy to its south. Its primary facade is oriented north to South Manitou Harbor. An entrance walk extends north from its primary entrance to a walk connecting South Manitou Island Life-Saving Station to the Lookout Tower Foundation. Primary views are to Lake Michigan, South Manitou Harbor, and South Manitou Island Life-Saving Station.

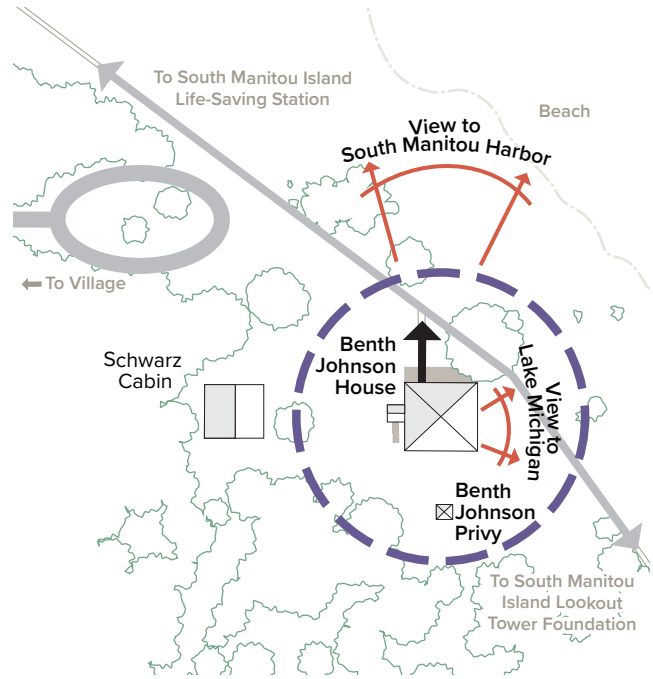


Figure 3-13. The Benth Johnson House is set in a small clearing along the beach with views to South Manitou Harbor (source: Mundus Bishop, 2025).



Figure 3-14. The Benth Johnson House setting (source: Mundus Bishop, 2024).

John and Lottie Tobin House

The John and Lottie Tobin House is set south of South Manitou Island Life-Saving Station within a clearing with dense woodland vegetation to the east and south and roads to the west and north. Its primary facade is oriented north to South Manitou Island Life-Saving Station. A walk extends from a secondary entrance at its western facade to the route connecting South Manitou Island Life-Saving Station to South Manitou Island Light Station. Primary views are to South Manitou Island Life-Saving Station.

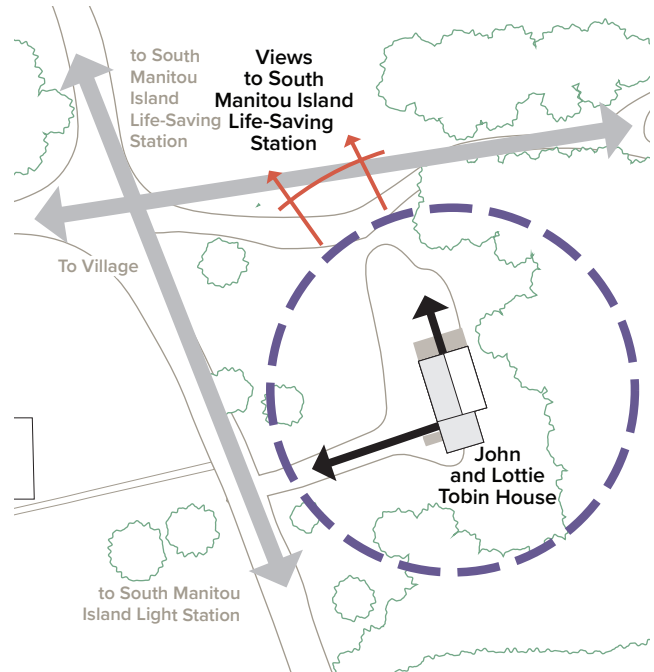


Figure 3-15. The John and Lottie Tobin House is set in a small clearing with its primary facade oriented north to South Manitou Island Life-Saving Station (source: Mundus Bishop, 2025).



Figure 3-16. The John and Lottie Tobin House setting (source: Mundus Bishop, 2024).

Haas House

The Haas House is set within a small clearing with dense woodland vegetation to the south, east, and north. A shed and water tower are to its east. Its primary facade is oriented west to the South Manitou Visitor Center and the route connecting South Manitou Island Life-Saving Station to South Manitou Island Light Station. An ABA ramp built after the period of significance extends from the gravel drive to an entrance at the west facade of the Haas House.



Figure 3-17. Haas House setting (source: Mundus Bishop, 2024).

Furst House

The Furst House is set within a small clearing surrounded by dense woodland vegetation on all sides, with its primary facade oriented west to the route connecting South Manitou Island Life-Saving Station to South Manitou Island Light Station. A short wood walkway leads to the entrance at the west facade of the Furst House.



Figure 3-19. Furst House setting (source: Mundus Bishop, 2024).

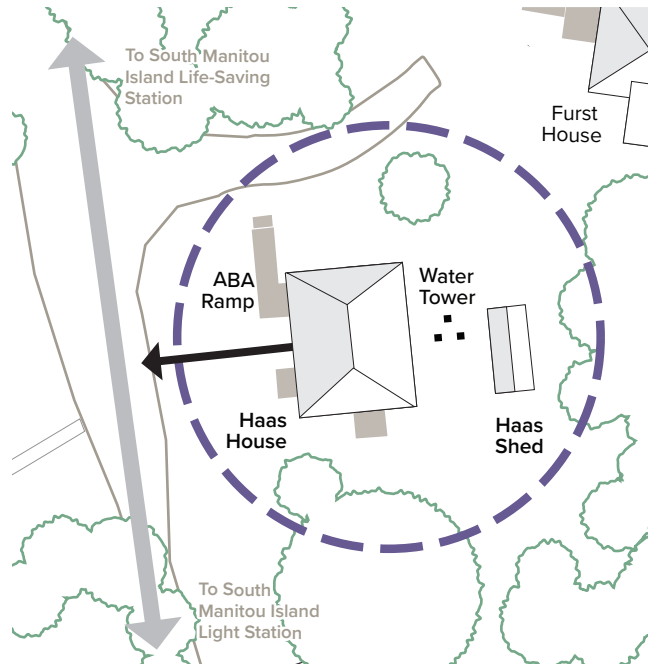


Figure 3-18. The Haas House is set within a small clearing with its primary facade oriented west to the South Manitou Visitor Center and a route connecting South Manitou Island Life-Saving Station to South Manitou Island Light Station (source: Mundus Bishop, 2025).

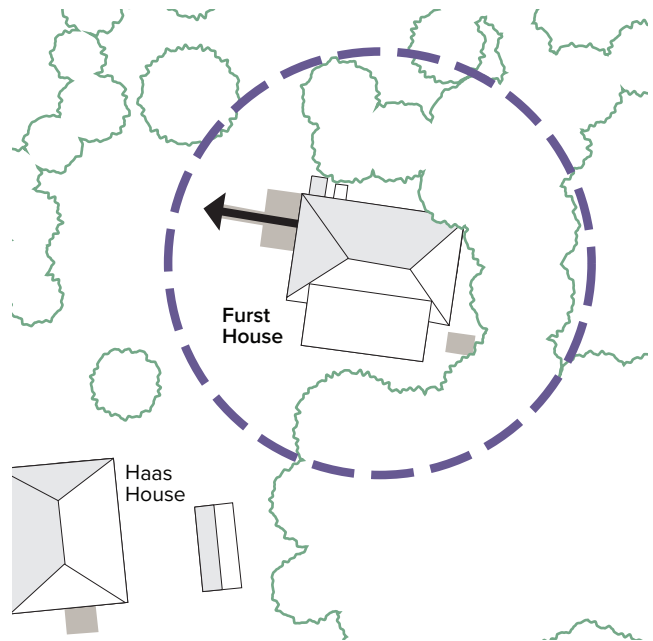


Figure 3-20. The Furst House is set within a small clearing surrounded by dense woodland vegetation with its primary facade oriented to the west (source: Mundus Bishop, 2025).

Thomas and Hattie Thompson House South Manitou Island Post Office and General Store

The Thomas and Hattie Thompson House South Manitou Island Post Office and General Store is set south of South Manitou Island Life-Saving Station within a small clearing of dense woodland with the Thompson Privy to the southwest and a partially collapsed root cellar to the west. Its primary facade is oriented east to the route connecting South Manitou Island Life-Saving Station to South Manitou Island Light Station. The building is comprised of two sections—a residence to the north and a post office and general store to the south. A historic concrete sidewalk leads from the road to the entrance of the post office and general store and wraps along the southwest corner of the building to an entrance at the west facade of the post office and general store, accessed by an ABA ramp built after the period of significance.

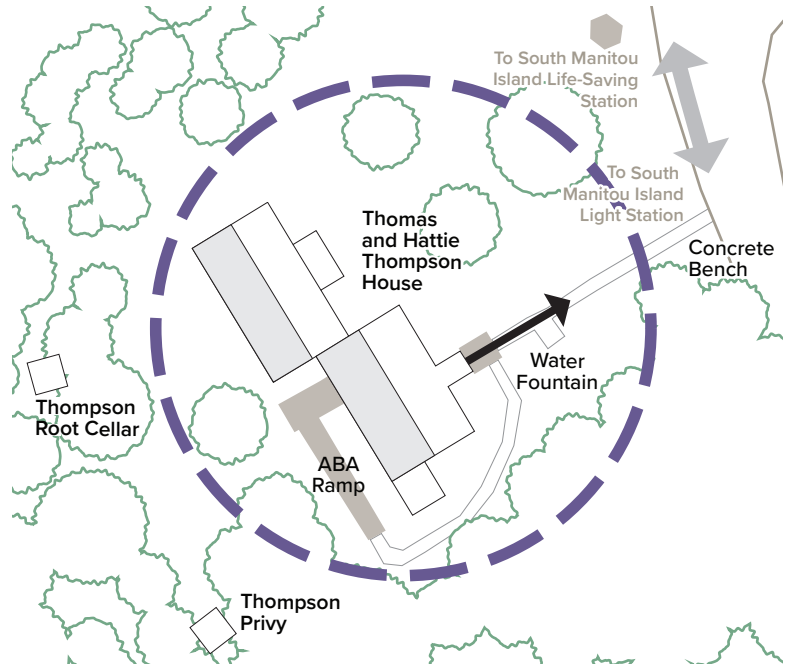


Figure 3-21. The Thomas and Hattie Thompson House is set within a small clearing with its primary facade oriented east to the South Manitou Visitor Center and a route connecting South Manitou Island Life-Saving Station to South Manitou Island Light Station (source: Mundus Bishop, 2025).



Figure 3-22. Thomas and Hattie Thompson House and South Manitou Island Post Office and General Store (source: Mundus Bishop, 2025).

Edwin and lola Tobin House

The Edwin and lola Tobin House is set south of South Manitou Island Life-Saving Station within a small clearing of dense woodland. Its primary facade is oriented east to the route connecting South Manitou Island Life-Saving Station to South Manitou Island Light Station. A wood walkway extends from a secondary entrance at the south facade to a wood deck at the west facade of the building. The walkway and wood deck were built after the period of significance.

Two low berms are set to the north and south of the Edwin and lola Tobin House.

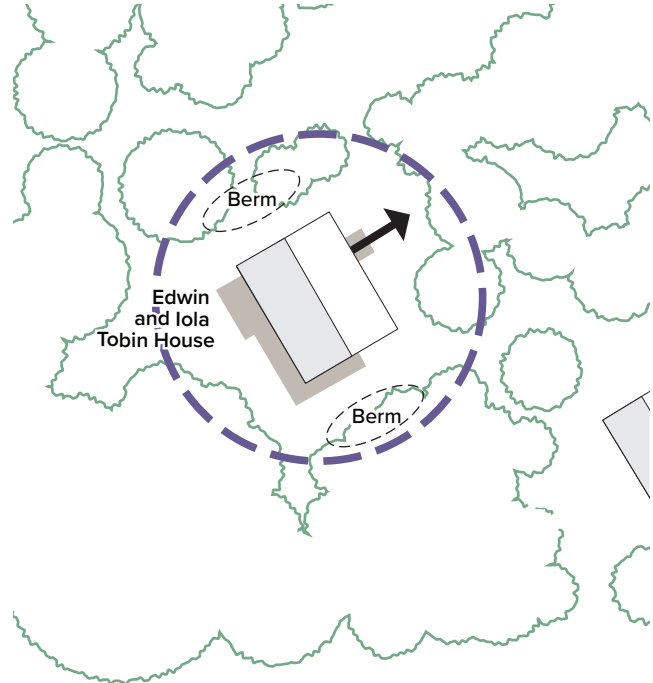


Figure 3-23. The Edwin and lola Tobin House is set within a small clearing surrounded by dense woodland vegetation with its primary facade oriented to the east (source: Mundus Bishop, 2025).



Figure 3-24. Berm north of the Edwin and lola Tobin House (source: Mundus Bishop, 2024).



Figure 3-25. Berm south of the Edwin and lola Tobin House (source: Mundus Bishop, 2024).

Hutzler House

The Hutzler House is set south of South Manitou Island Life-Saving Station with dense woodland to the south and native grass and shrub vegetation to the east, west, and north. Its primary facade is oriented to the southeast. A wood walkway extends from the village road to the primary building entrance at the southeast facade and wraps around the building to a secondary entrance at the northwest facade.

Primary views are to Lake Michigan and South Manitou Island Life-Saving Station.

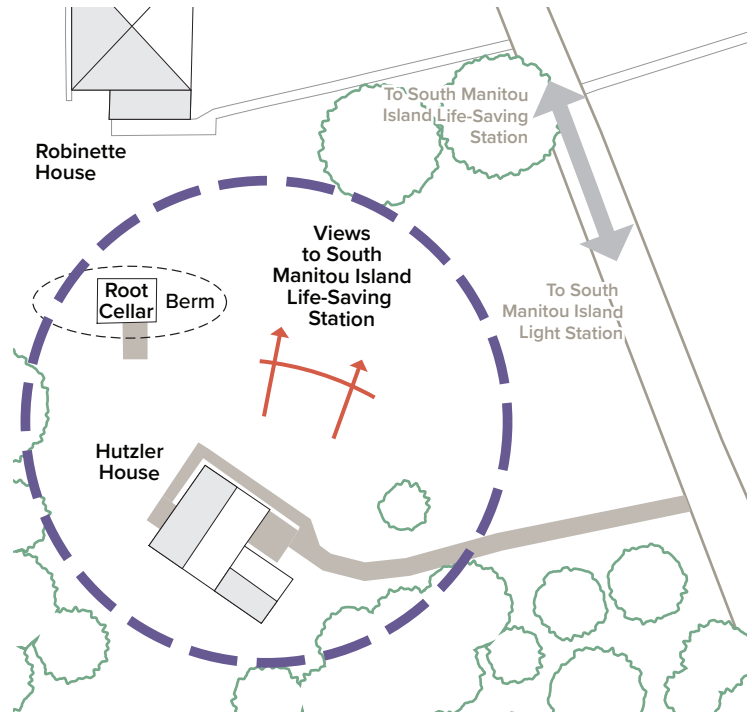


Figure 3-26. The Hutzler House is set south of South Manitou Island Life-Saving Station within a small clearing with dense woodland (source: Mundus Bishop, 2025).



Figure 3-27. Boardwalk access to the Hutzler House (source: Mundus Bishop, 2024).



Figure 3-28. Open setting surrounding the Hutzler House (source: Mundus Bishop, 2024).

Robinette House

The Robinette House is set south of South Manitou Island Life-Saving Station at the intersection of two routes with dense woodland to the south and native grass and shrub vegetation to the east, west, and north. Its primary facade is oriented to the north. Wood walks previously extended from the village road to the primary building entrance at the north facade and a secondary entrance at the south facade.

Primary views are to Lake Michigan and South Manitou Island Life-Saving Station.

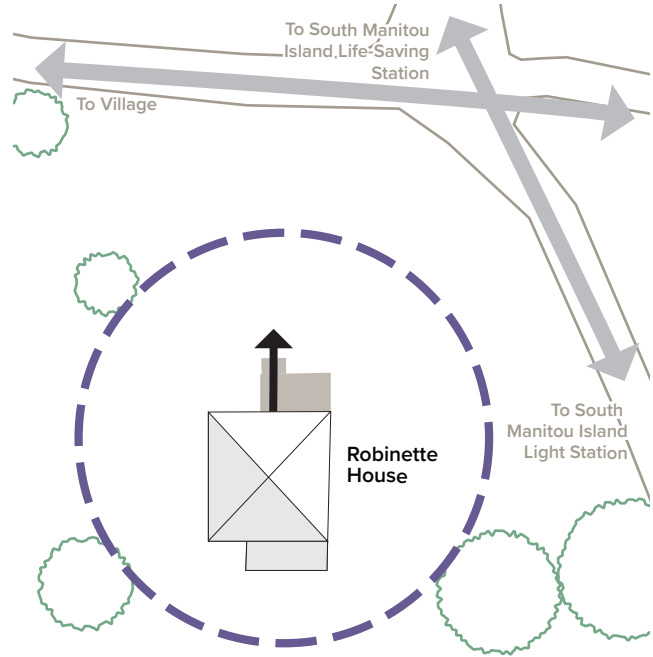


Figure 3-29. The Robinette House is set within a small clearing surrounded by dense woodland vegetation with its primary facade oriented to the north (source: Mundus Bishop, 2025).



Figure 3-30. The Robinette House setting (source: Mundus Bishop, 2024).



Figure 3-31. The Robinette House setting (source: Mundus Bishop, 2024).

Johnson-Kelderhouse House

The Johnson-Kelderhouse House is set southwest of South Manitou Island Life-Saving Station with dense woodland to the west and south. Its primary facade is oriented to the east with a hardpack surface access route to the west. Vegetation partially obstructs views north to Lake Michigan.

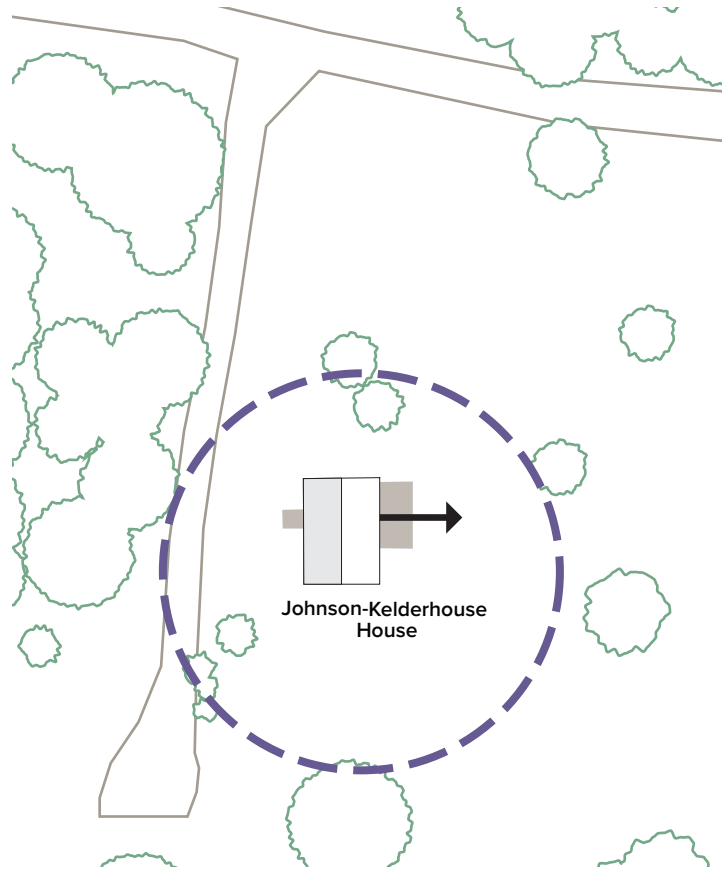


Figure 3-32. The Johnson-Kelderhouse House is set within a clearing with dense woodland vegetation to the west and south with its primary facade oriented to the east (source: Mundus Bishop, 2025).



Figure 3-33. Views north to Lake Michigan (source: Mundus Bishop, 2024).



Figure 3-34. The Johnson-Kelderhouse House (source: Mundus Bishop, 2024).

Theodore and Matilda Thompson House

The Theodore and Matilda Thompson House is set southwest of South Manitou Island Life-Saving Station within a small clearing of dense woodland. Its primary facade is oriented to the north with a hardpack surface access route to the east.



Figure 3-35. The Theodore and Matilda Thompson House (source: Mundus Bishop, 2024).

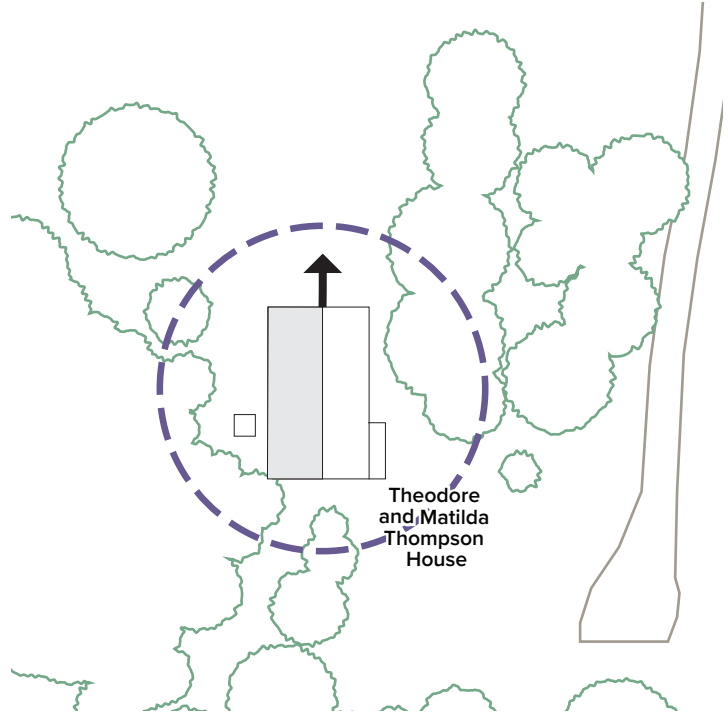


Figure 3-36. The Theodore and Matilda Thompson House is set within a small clearing surrounded by dense woodland vegetation with its primary facade oriented to the north (source: Mundus Bishop, 2025).

Keeler House

The Keeler House is set southwest of South Manitou Island Life-Saving Station within a small clearing of dense woodland. Its primary facade is oriented north with a hardpack surface access route that wraps around the northwest corner of the house.



Figure 3-37. The Keeler House (source: Clerestory Preservation, 2024).

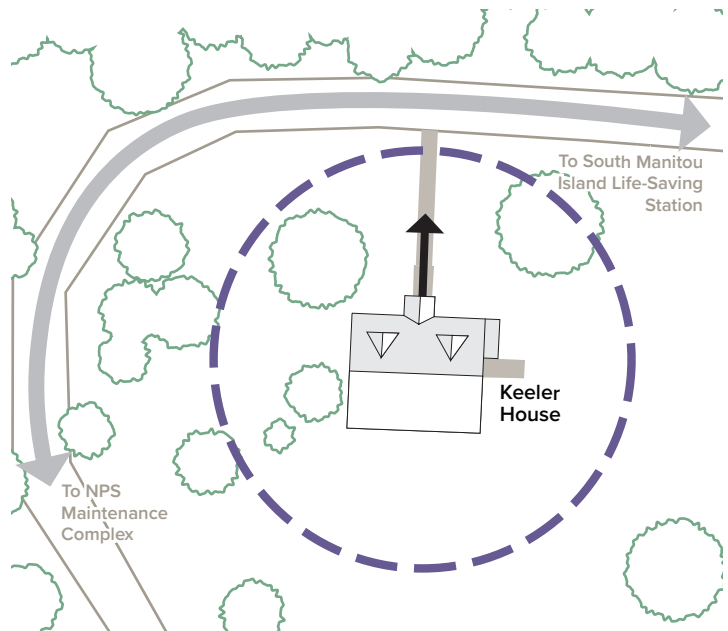


Figure 3-38. The Keeler House is set within a small clearing with dense woodland and its primary facade oriented north (source: Mundus Bishop, 2025).

Walters House

The Walters House is set southwest of South Manitou Island Life-Saving Station within a small clearing of dense woodland. Its primary facade is oriented north with a hardpack surface access route to the east.



Figure 3-39. The Walters House (source: Clerestory Preservation, 2024).

Schwarz Cabin

The Schwarz Cabin is set southwest of South Manitou Island Life-Saving Station within a small clearing of dense woodland. Its primary facade is oriented north to Lake Michigan. Views to South Manitou Island Life-Saving Station are obscured by vegetation. The Schwarz Cabin remains in private ownership and was built after the period of significance.



Figure 3-41. The Schwarz Cabin (source: Mundus Bishop, 2024).

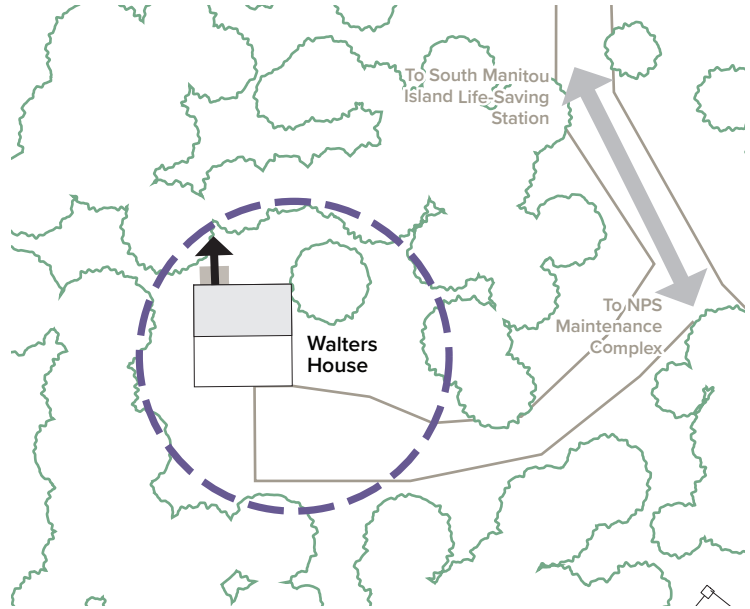


Figure 3-40. The Walters House is set within a small clearing with dense woodland and its primary facade oriented north (source: Mundus Bishop, 2025).

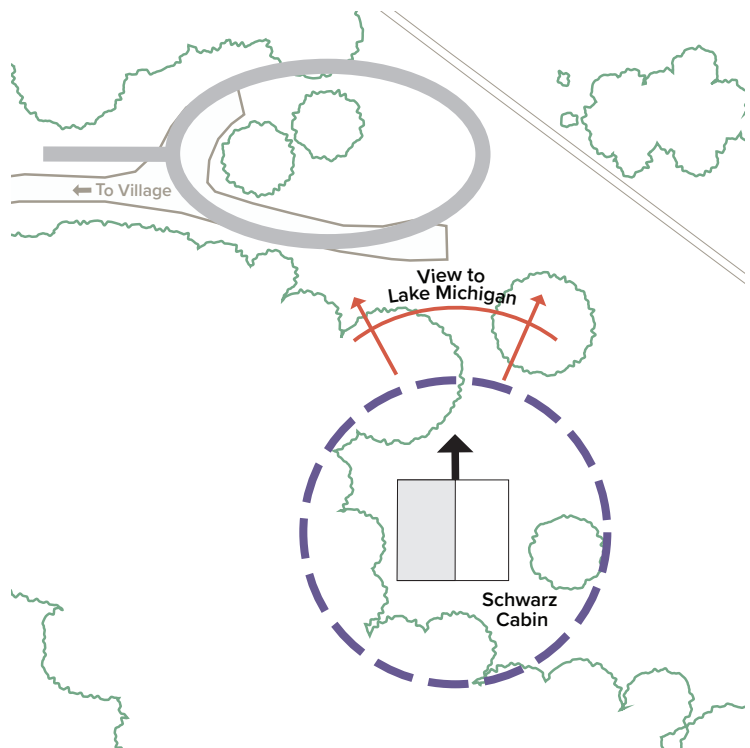


Figure 3-42. The Schwarz Cabin is set within a small clearing with dense woodland and its primary facade oriented north (source: Mundus Bishop, 2025).



Figure 3-43. The study area retains its historic orientation to South Manitou Harbor and Lake Michigan. Visual relationships between South Manitou Island Life-Saving Station buildings and Village houses are modified by the encroachment of woodland vegetation south of the station (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore, by 1918).

Analysis

The spatial organization and cluster arrangement of the study area retain integrity and contribute to its significance. South Manitou Island Life-Saving Station and Village remain in their original locations as defined clusters of development arranged along the shoreline of Lake Michigan. Spatial organization and relationships are modified by the removal of buildings and encroachment of dense woodland vegetation in the historically open setting of the study area (re: Vegetation Analysis). Dense vegetation obscures historic views between South Manitou Island Life-Saving Station, South Manitou Island Village houses, and Lake Michigan.

The USLSS and USCG expanded station development as staffing and operational needs grew and ensured the established grid was preserved as new buildings and features were added. The study area was designed and organized as a complex of separate buildings providing specific functions with life-saving and rescue uses to the northwest, and residential and supporting uses to the south. The spaces and features were essential for the efficient functionality of the life-saving station and were connected visually and

physically by walks. The overall appearance of a formal military aesthetic remains.

The establishment of South Manitou Island Village occurred incrementally, and its less formal arrangement reflects the organic development of the Village. South Manitou Island Village remains as a defined cluster of development between South Manitou Island Life-Saving and Light Stations, with individual houses organized along two central routes with irregular setbacks and orientations to the routes.

South Manitou Island Life-Saving Station was located on a protected beach with a deep natural harbor where buildings were arranged with clear lines of sight to Lake Michigan, Manitou Passage, and adjacent buildings. Views between South Manitou Island Life-Saving Station and Lake Michigan are similar to the period of significance. Historic views are modified by the encroachment of woodland vegetation into the open setting of house sites and lands between the house sites and South Manitou Life-Saving Station buildings. Historic views from village houses to Lake Michigan are largely obscured by vegetation.



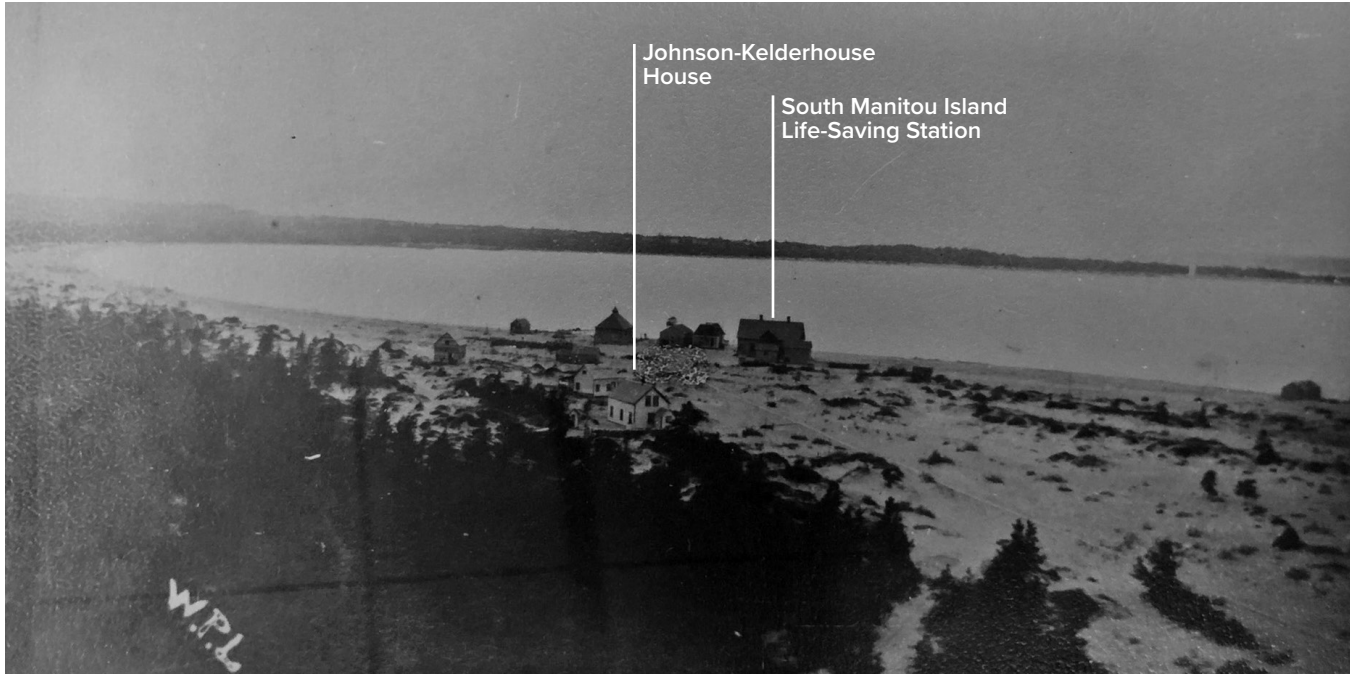


Figure 3-45. South Manitou Island Life-Saving Station and Village viewed from South Manitou Island Light Station, before 1908. The study area and surrounded lands had largely been logged by the 1840s. Deforestation may have contributed to natural dune ecology and successional changes in vegetation (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 3-46. South Manitou Island Life-Saving Station and Village viewed from South Manitou Island Light Station. The historically open character of the study area is modified by the establishment of second growth forest in previously logged lands (source: Mundus Bishop, 2024).

South Manitou Island Life-Saving Station Treatment

The spatial arrangement of South Manitou Island Life-Saving Station, characterized by its compact cluster of development organized along a grid and set along the edge of South Manitou Harbor to Lake Michigan and Manitou Passage with village house sites to the south, will be protected by preserving its compact cluster of development and protecting and repairing views between buildings and to South Manitou Island Village, South Manitou Harbor, Manitou Passage, and Lake Michigan.

Preserve South Manitou Island Life-Saving Station as a well-defined cluster of development along South Manitou Harbor with buildings oriented to the water.

Preserve the views and spatial relationship of buildings and structures sited in relation to South Manitou Harbor, Manitou Passage, and Lake Michigan.

Preserve and repair the historic composition of open lawn, allees of trees, and perimeter fences at the Station Dwelling. Maintain a 65-foot (minimum) fire buffer around buildings. Allow removal of trees that present a hazard to the building.

Repair and manage contributing views.

- Maintain clear sight lines to South Manitou Harbor, Manitou Passage, and Lake Michigan from the Station Dwelling, Boathouse #1, Boathouse #2, Storm Signal Tower and Flag Locker, and between these buildings and structures. Prune and selectively remove vegetation to maintain and repair these views.

Preserve the natural topography of South Manitou Island Life-Saving Station, characterized by the shifting sand that creates subtle variations in grade. Allow for natural processes to modify the topography so long as cultural resources are not damaged.

South Manitou Island Village Treatment

The spatial arrangement of South Manitou Island Village, characterized by its linear cluster of development arranged along two central routes with houses set at irregular setbacks and orientations, will be protected by preserving a compact cluster of development and protecting and repairing views between buildings and to South Manitou Island Life-Saving Station, South Manitou Harbor, Manitou Passage, and Lake Michigan.

Preserve South Manitou Island Village as a well-defined linear cluster of development with houses set at irregular setbacks and orientations.

Restore and maintain the open clearings surrounding South Manitou Island Village homes. Maintain a 65-foot (minimum) fire buffer around buildings. Allow removal of trees that present a hazard to the building.

Repair and manage contributing views from house sites to South Manitou Island Life-Saving Station, South Manitou Passage, and Lake Michigan. Prune and selectively remove vegetation to maintain and repair these views.

Preserve the natural topography of the study area, characterized by the shifting sand that creates subtle variations in grade. Allow for natural processes to modify the topography so long as cultural resources are not damaged.

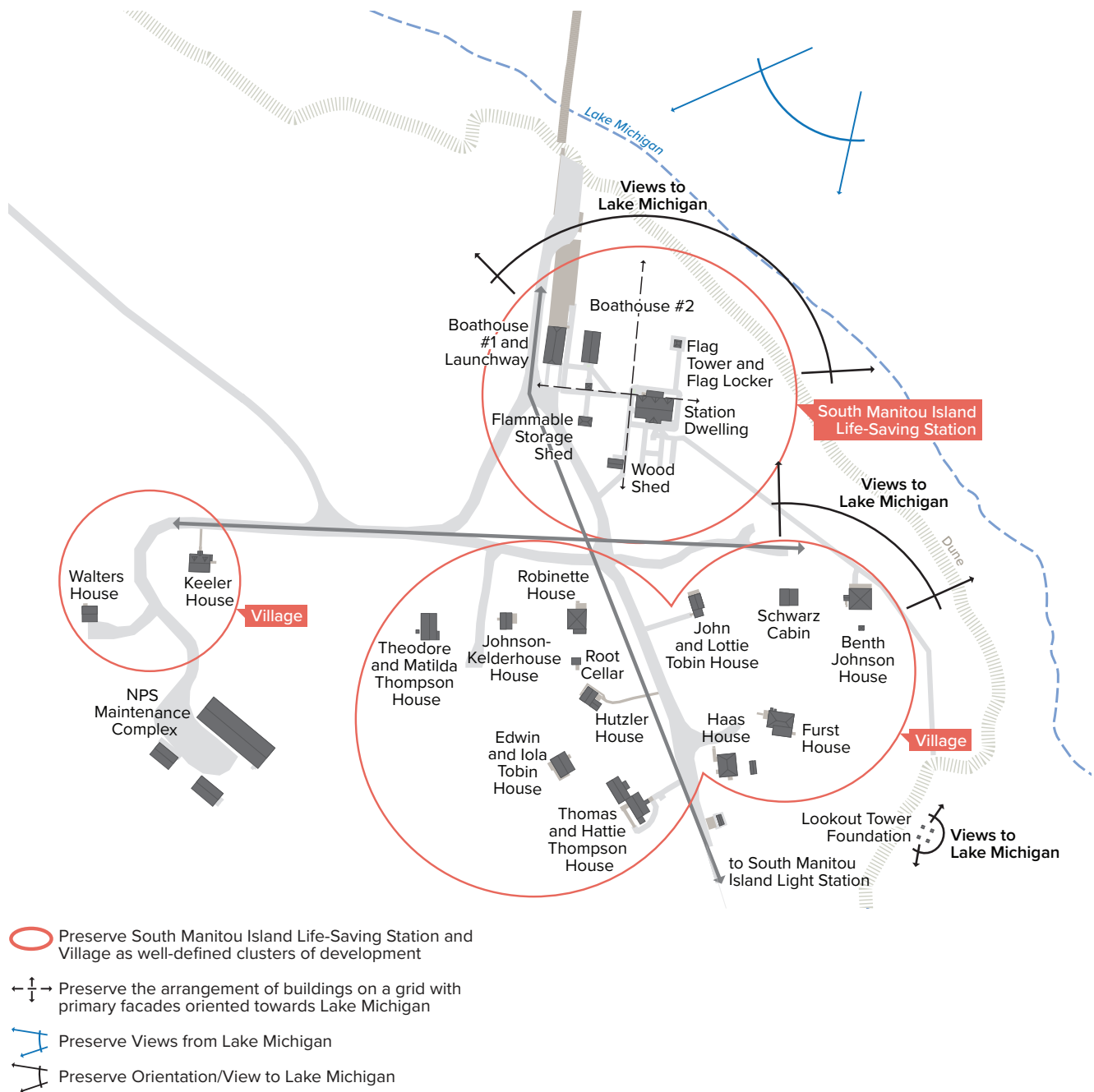


Figure 3-47. Preserve South Manitou Island Life-Saving Station’s arrangement along Lake Michigan with buildings oriented to Lake Michigan with orthogonal walks providing direct connections between buildings.

Preserve South Manitou Island Village’s linear cluster of development arranged along two central routes with houses set at irregular setbacks and orientations (source: Mundus Bishop, 2025).

Table 3-2. Spatial Organization, Topography, and Views Contributing Features

Feature	Description	CLI Feature ID	CRIS-HS Resource ID	FMSS Record Type	FMSS Record Number	Condition	Contributing/ Non-Contributing
Relationship between historic buildings and South Manitou Harbor, Lake Michigan, and Manitou Passage	Design of South Manitou Island Life-Saving Station, arranged along the shoreline and oriented to South Manitou Harbor, Lake Michigan, and Manitou Passage. Design of South Manitou Island Village, arranged along two central routes between South Manitou Island Life-Saving and Light Stations.	—	—	—	—	—	Contributing
Settings of historic buildings	Design of South Manitou Island Life-Saving Station buildings set in open lawn with primary facades oriented toward South Manitou Harbor and Lake Michigan and orthogonal walks. Design of South Manitou Island Village houses, arranged along two central routes with houses set at irregular setback and orientations.	—	—	—	—	—	Contributing
View to South Manitou Harbor and Lake Michigan	Views to South Manitou Harbor and Lake Michigan from the study area.	—	—	—	—	—	Contributing
View to South Manitou Island Life-Saving Station	Views to the study area from South Manitou Harbor and Lake Michigan.	—	—	—	—	—	Contributing

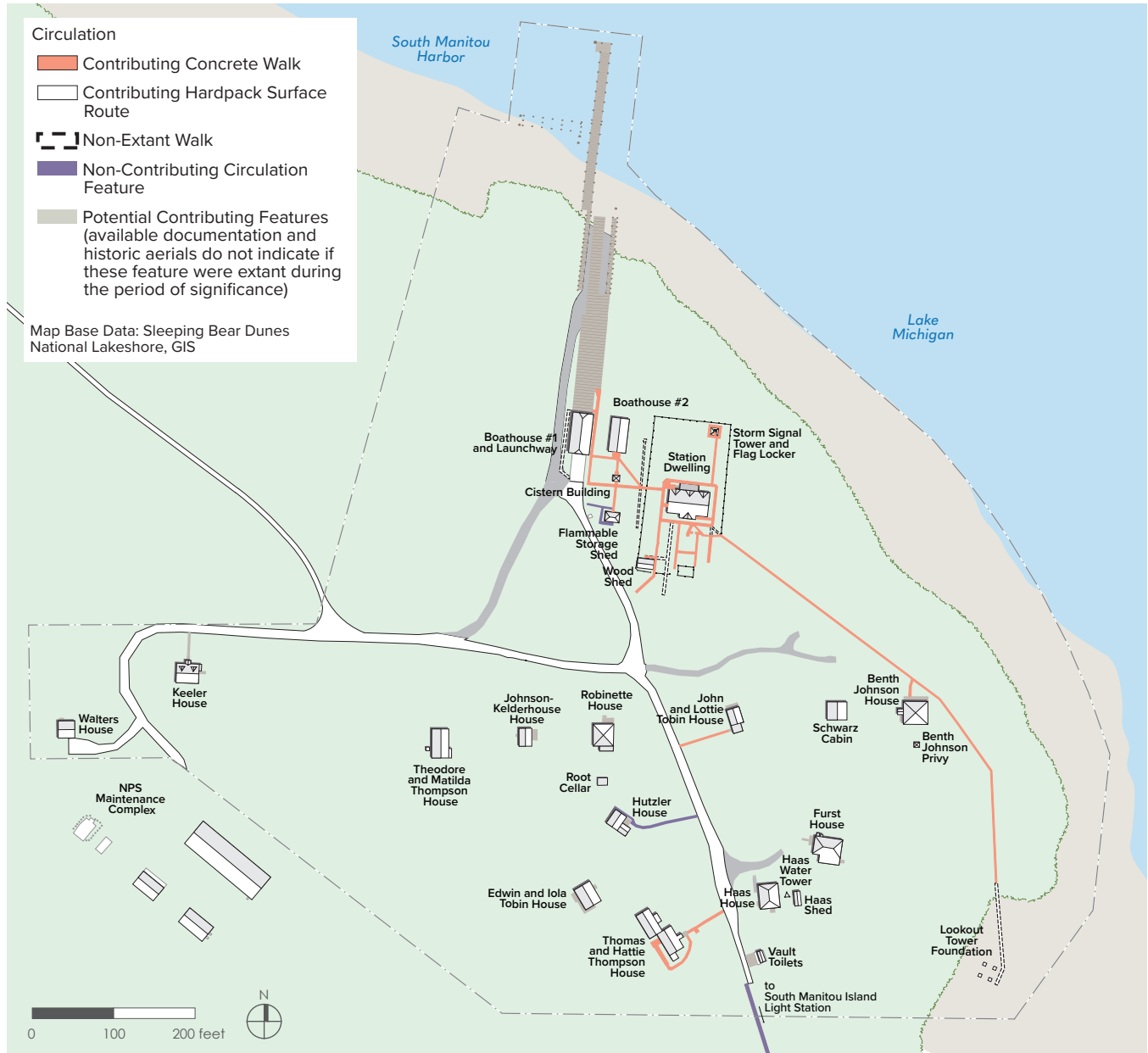


Figure 3-48. South Manitou Island Life-Saving Station and Village Contributing and Non-Contributing Circulation Features (source: Mundus Bishop, 2025).

Circulation Features

South Manitou Island Life-Saving Station circulation is characterized by its utilitarian walks that connect building entrances and reinforce the formality and efficiency of the historic life-saving station. South Manitou Island Village circulation is characterized by its informal network of hardpack surface roads and walks to house sites and connecting the village to South Manitou Island Life-Saving Station and Light Station. The overall hierarchy and alignment of circulation remain similar to the period of significance and contribute to the study area.

Existing Condition

South Manitou Island Life-Saving Station circulation includes utilitarian concrete walks providing access between buildings. Walks parallel building facades and provide direct connections between building entrances, reinforcing the formality of the cultural landscape. Walks are 2'-0" to 4'-0" wide and are stamped "USLSS." Walks are largely in fair to poor condition with areas of cracking, spalling, and missing material.

Hardpacked surface routes provide access for pedestrians and NPS administrative vehicles. These include routes from Boathouse #1 south through South Manitou Island Village to the Thomas and Hattie Thompson House and a route from the Benth Johnson House to the NPS Maintenance Complex. Hardpack surface routes are generally in good condition.

Concrete walks, hardpack surface routes, and boardwalks provide access to the entrances of South Manitou Island Village houses.



Figure 3-49. Utilitarian walks provide direction connections between buildings and features throughout the study area (source: Mundus Bishop, 2024).



Figure 3-50. USLSS stamped on concrete walk (source: Mundus Bishop, 2024).



Figure 3-51. Sand and gravel routes provide pedestrian and NPS vehicle access (source: Mundus Bishop, 2024).

Analysis

The overall hierarchy and alignment of circulation remain similar to the period of significance and contribute to the study area. Modifications to circulation are primarily associated with the loss or removal of walks to village house entrances and walks that have been removed or possibly buried under sand and sod. Segments of walks near the Lookout Tower Foundation are largely covered by sand.

Historic photographs indicate circulation varied throughout the period of significance to provide access to buildings within and outside the study area. Narrow boardwalks appear in early photographs of the study area, largely providing access through dunes and beaches. Extant walks retain historic alignments as illustrated in photographs from the period of significance and a 1958 plot plan of the study area, and contribute to the significance of the study area.

USLSS logs indicate walks were built as new buildings were added or existing buildings were moved. A wood boardwalk was typically built first and replaced later with a concrete walk. Gravel borders were placed along walk edges to aid in grass trimming and protect concrete work.

Historic roads within the study area are not documented. The hardpack surface routes of the study area remain as original connections. Routes likely retain historic alignment. The route to the Benth Johnson House remains but is likely modified by the loss of a segment that created a loop north of the house.



Figure 3-52. Narrow wood boardwalks historically provided access to the John and Lottie Tobin House, 1955 (source: Sleeping Bear Archives).



Figure 3-53. Concrete walks historically provided access to the Thomas and Hattie Thompson House and Post Office, after 1925 (source: Sleeping Bear Archives).



Figure 3-54. Boardwalks south-southeast of the Station Dwelling, 1927 and present-day walks (right) (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore and Mundus Bishop, 2024).



Figure 3-55. Orthogonal walks at the Station Dwelling, before 1932 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 3-56. The Station Dwelling, c. 1910 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 3-57. The Station Dwelling, 2024 (source: Mundus Bishop).

Treatment

South Manitou Island Life-Saving Station's contributing circulation routes and hierarchy will be preserved and repaired, and the sustainability and accessibility of circulation features will be improved.

Preserve hardpack surface routes as contributing features of the circulation system. Preserve and maintain the alignment, primitive character, and hardpack surfacing of the roads. Consider formalizing a turnaround with hardpack surface south of South Manitou Island Life-Saving Station to provide vehicles with adequate space to drop off visitors and turn around.

Preserve the historic width, alignment, and material of contributing concrete walks. Repair contributing concrete walks, ensuring level surfaces and grades for accessibility and safety.

Consider providing ABAAS-compliant routes to sites throughout South Manitou Island Life-Saving Station and Village, including Boathouse #1, Haas House, Thomas and Hattie Thompson House, and the comfort stations. Provide landing/resting areas to meet current ABAAS requirements. Complete a topographic survey to inform the design of ABAAS-compliant routes.

Preserve and maintain the boardwalk connecting South Manitou Island to South Manitou Island Light Station.

Maintain non-historic boardwalk connections to Village homes. Continue investigations to identify the location of historic concrete walks currently covered by sand, vegetation, and/or boardwalks. Ensure site investigations are completed in consultation with Midwest Archeological Center (MWAC) and informed by historic maps.

Consider a boardwalk to maintain pedestrian access through South Manitou Island Village during flood events. Match the design, width, and alignment of the existing boardwalk to South Manitou Lighthouse Station. Maintain the hardpack surface road to the east of the boardwalk.

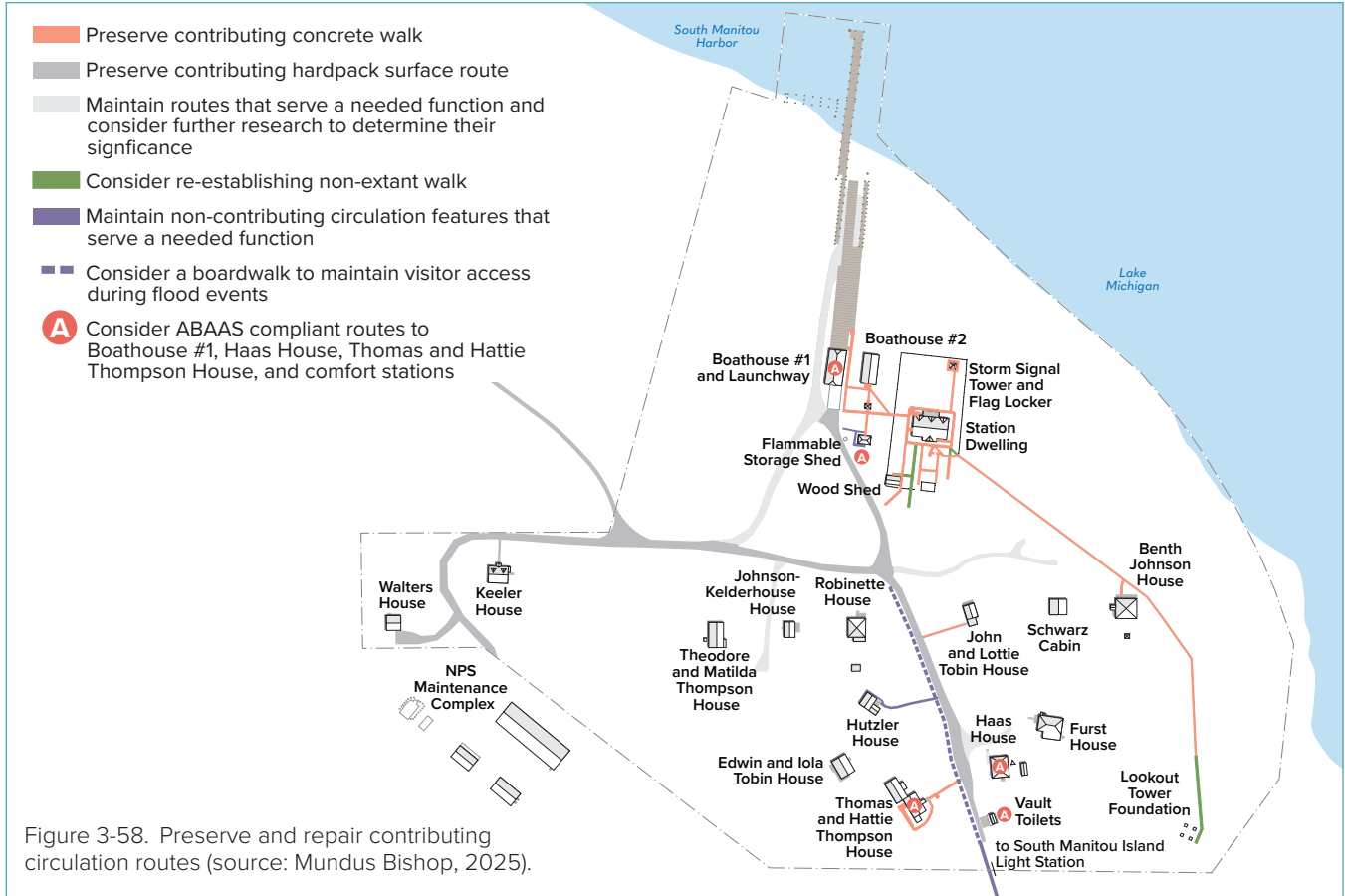


Figure 3-58. Preserve and repair contributing circulation routes (source: Mundus Bishop, 2025).

Table 3-3. Circulation Contributing Features

Feature	Description	CRIS-CL Resource ID	CRIS-HS Resource ID	FMSS Record Type	FMSS Record Number	Condition	Contributing/ Non-Contributing
South Manitou Island Life-Saving Station Walks	2'-0" to 4'-0" wide concrete walks. Condition is impacted by cracking, spalling, and missing material.	—	015071	Location	1888	Varies	Contributing
South Manitou Island Life-Saving Station to Lookout Tower Foundation Walk	2'-0" wide concrete walks. Condition is impacted by cracking, spalling, and missing material.	—	—	—	—	Varies	Contributing
Sand and Gravel Routes	Sand and gravel routes of varying widths. Routes include the central spine of the village (route from South Manitou Life-Saving Station to South Manitou Island Light Station) and the route to the Benth Johnson House.	—	—	—	—	Varies	Contributing



Figure 3-59. South Manitou Island Life-Saving Station and Village Contributing and Non-Contributing Buildings and Structures (source: Mundus Bishop, 2025).

Buildings and Structures

South Manitou Island Life-Saving Station and Village include buildings, structures, and foundations of non-extant structures built by the USLSS, USCG, and Village community. The overall arrangement of buildings and structures retains integrity and represents facilities critical to the operations of a working life-saving station and active village.

Existing Condition

South Manitou Island Life-Saving Station includes seven buildings and several structures and foundations of non-extant structures built by the U.S. Life-Saving Service and U.S. Coast Guard. Buildings and structures associated with the historic South Manitou Island Life-Saving Station include Boathouse #1 and Launchway, Boathouse #2, Cistern Building, Flammable Storage Shed, Wood Shed, Station Dwelling, and Storm Signal Tower and Flag Locker.

Ten village buildings and structures are within the study area. Contributing building and structures include the Benth Johnson House, Benth Johnson Privy, John & Lottie Tobin House, Haas House, Haas Shed, Haas Water Tower, Furst House, Thomas & Hattie Thompson House-South Manitou Island Post Office & General Store, Thompson Privy, Thompson Root Cellar, Edwin & Iola Tobin House, Hutzler House, Robinette House, Root Cellar, Johnson-Kelderhouse House, Theodore & Matilda Thompson House, Keeler House, and Walters House. Non-contributing buildings and structures were added after the period of significance and include the Schwarz Cabin and Vault Toilets.

Buildings and structures are generally in good condition.



Figure 3-60. Boathouse #1 and Launchway (source: Mundus Bishop, 2024).



Figure 3-61. Boathouse #2 (source: Mundus Bishop, 2024).



Figure 3-62. Cistern Building (source: Mundus Bishop, 2024).



Figure 3-63. Flammable Storage Shed (source: Mundus Bishop, 2024).



Figure 3-64. Wood Shed (source: Mundus Bishop, 2024).



Figure 3-65. Station Dwelling (source: Mundus Bishop, 2024).



Figure 3-66. Storm Signal Tower and Flag Locker (source: Mundus Bishop, 2024).



Figure 3-67. Lookout Tower Foundation (source: Mundus Bishop, 2024).



Figure 3-68. Benth Johnson House (source: Mundus Bishop, 2024).



Figure 3-71. Haas House and Shed (source: Mundus Bishop, 2024).



Figure 3-69. Benth Johnson Privy (source: Mundus Bishop, 2024).



Figure 3-72. Furst House (source: Mundus Bishop, 2024).



Figure 3-70. John and Lottie Tobin House (source: Mundus Bishop, 2024).



Figure 3-73. Thomas and Hattie Thompson House and South Manitou Island Post Office and General Store (source: Mundus Bishop, 2024).



Figure 3-74. Edwin and Iola Tobin House (source: Mundus Bishop, 2024).



Figure 3-77. Root Cellar (source: Mundus Bishop, 2024).



Figure 3-75. Hutzler House (source: Mundus Bishop, 2024).



Figure 3-78. Johnson-Kelderhouse House (source: Mundus Bishop, 2024).



Figure 3-76. Robinette House (source: Mundus Bishop, 2024).



Figure 3-79. Theodore and Matilda Thompson House (source: Mundus Bishop, 2024).



Figure 3-80. Keeler House (source: Clerestory Preservation, 2024).



Figure 3-81. Walters House (source: Clerestory Preservation, 2024).



Figure 3-82. Schwarz Cabin (source: Mundus Bishop, 2024).



Figure 3-83. Historic photograph illustrating non-extant buildings south and east (left in image) of the Station Dwelling, pre-1915 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

Analysis

The USLSS and USCG established buildings and structures during the period of significance for housing, administrative, and operational uses. Extant buildings and structures, along with their orthogonal configuration and orientation to Lake Michigan, contribute to the significance of the study area. The overall arrangement of buildings retains integrity.

Historic photographs indicate that the number of buildings and structures varied throughout the period of significance. These features are not included on historical plans or written documentation, and their use and ownership are unknown. Historic documentation indicates the USLSS built additional privies and outhouses, but their location is not documented.

Treatment

The historic building patterns and relationships of South Manitou Island Life-Saving Station and Village will be preserved.

Preserve contributing buildings and structures.

Consider paint analysis and historical photo research of South Manitou Island Village buildings and structures to determine earlier paint colors and paint to better reflect individual ownership and distinguish South Manitou Island Village from South Manitou Island Life-Saving Station.

Consider stabilization of the Thompson Root Cellar to prevent further deterioration of the structure.

Preserve the Lookout Tower Foundation.

Provide interpretation of the non-extant Lighthouse Station Boathouse, Pumphouse, Wood Shed (original location), Woodhouse, and Fruit Cellar.

Preserve foundations and below grade resources. Identify stabilization and repair based on each feature's condition. Preservation approaches include protecting foundations, abutments, concrete pads, and other extant resources from further damage (e.g., water and weather); stabilizing and repairing features to elongate their lifespan; and protecting below-grade features.

Establish and maintain positive drainage away from buildings and ensure roof runoff is directed away from the building. Repair previous soil erosion. Remove wind-blown or accumulated soils that contact exterior wood walls/siding.

Consider providing ABAAS-compliant routes and ramps to Boathouse #1, Haas House, Thomas and Hattie Thompson House, and comfort stations. Provide landing/resting areas to meet current ABAAS requirements. Complete a topographic survey to inform the design of ABAAS-compliant routes.

Table 3-4. Buildings and Structures Contributing Features

Feature	Description	CRIS-CL Resource ID	CRIS-HS Resource ID	FMSS Record Type	FMSS Record Number	Condition	Contributing/ Non-Contributing
Boathouse #1 and Launchway	24'-0" by 50'-0" wood-frame building with a wood shingled hip roof and interior brick chimney and two bays, one with a marine rail for launching surfboats.	—	006007	Location	1868		Contributing
Boathouse #2	42'-0" by 21'-0" wood-frame building with a gable roof and one bay.	—	006009	Location	1869		Contributing
Cistern Building (Small Shed)	7'-4" by 8'-5" one-story wood frame building on a concrete foundation with a wood shingled hip roof with flared eaves and exposed round rafter tails. Building is sheathed with vertical board and batten with double board and batten doors at north and south facade.	—	006008	Location	1870		Contributing
Flammable Storage Shed	10'-0" by 10'-0" one-story concrete building with wood shingled hip roof and modern metal entry doors at north and south facade. Building has been rehabilitated for comfort station use.	—	015245	Location	2173		Contributing
Lookout Tower Foundation	Four concrete piers. Two east piers are ruins. West piers are 6'-0" tall and 4' square at base and are pyramidal in form. Condition is impacted by deterioration of concrete and lichen growth.	—	543975	Asset	015061		Contributing
Storm Signal Tower and Flag Locker	8'-0" by 10'-0" by 70'-0" metal tower. 4'-0" by 4'-0" by 8'-0" metal flag locker.	—	015062	Asset	543275		Contributing
Station Dwelling	30'-0" by 50'-0" two-story wood frame building with a concrete foundation, full basement, one gable dormer on the south and three gable dormers on the north.	—	006005	Location	1819		Contributing
Wood Shed	12'-0" by 18'-0" one-story wood-frame building with a side gable wood shingle roof, lap siding exterior walls with cornerboards and wood shingles in gable ends.	—	006010	Location	1871		Contributing

Table 3-4. Building and Structures Contributing Features (continued)

Feature	Description	CRIS-CL Resource ID	CRIS-HS Resource ID	FMSS Record Type	FMSS Record Number	Condition	Contributing/ Non- Contributing
Benth Johnson House	24'-0" by 24'-0" one-story building with pyramid wood shingle roof, lap siding with cornerboards, log pier foundation with horizontal board skirting, and central brick chimney.	—	015070	Location	1825	—	Contributing
Benth Johnson Privy	5'-0" by 5'-0" one-story building with tar-papered pyramidal roof one-story with drop lap siding and no foundation.	—	015072	Location	51722	—	Contributing
John and Lottie Tobin House	15'-0" by 20'-0" one and one half story building with wood shingle gable roof, clapboard siding with cornerboards, and concrete foundation.	—	015069	Location	1830	—	Contributing
Furst House	20'-0" by 20'-0" one-story building with wood shingle hip roof, boxed eaves, lap siding with cornerboards, and wood pier foundation with horizontal board skirting.	—	015074	Location	1824	—	Contributing
Haas House	22'-0" by 18'-0" one-story building with asphalt shingle hip roof, boxed eaves, wood shingle siding, concrete pier foundation with wood skirting.	—	015077	Location	1893	—	Contributing
Haas Shed	8'-0" by 12'-0" one-story building with asphalt roll gable roof.	—	015078	Location	51782	—	Contributing
Haas Water Tower	25'-0" tall tower with three metal legs bolted to form a tripod. Topped with flagpole and weather vane.	—	015079	Location	19446	—	Contributing
Hutzler House	15'-0" by 20'-0" one-and-one half story wood frame building with horizontal wood drop siding and a side-gable wood shingle roof.	—	015068	Location	1832	—	Contributing
Johnson-Kelderhouse House	18'-0" by 20'-0" one-and-one half story wood frame building with horizontal wood drop siding and a side-gable wood shingle roof.	—	015087	Location	1826	—	Contributing
Keeler House	28'-0" by 25'-0" one-and-one half story wood frame building with horizontal wood drop siding, wood shingles at the gable ends, and a side-gable wood shingle roof.	—	015064	Location	1831	—	Contributing

Table 3-4. Building and Structures Contributing Features (continued)

Feature	Description	CRIS-CL Resource ID	CRIS-HS Resource ID	FMSS Record Type	FMSS Record Number	Condition	Contributing/ Non- Contributing
Robinette House	22'-0" by 22'-0" one-story wood frame building with horizontal wood siding and a pyramidal wood-shingle roof.	—	015067	Location	1827	—	Contributing
Root Cellar	Small root cellar.	—	—	—	51721	—	Contributing
Schwarz Cabin	Privately-owned one-story house built after the period of significance.	—	—	—	—	—	Non-Contributing
Theodore and Matilda Thompson House	18'-0" by 20'-0" one-and-one half story wood frame building with clapboard siding with cornerboards, and an asphalt shingle gable roof.	—	015066	—	—	—	Contributing
Thomas and Hattie Thompson House-South Manitou Island Post Office and General Store	36'-0" by 78'-0" one-and-one half story wood frame building with clapboard siding with cornerboards, and a wood shingle gable roof. A one-story addition with gable roof is at the east elevation with the date of "1924" stamped in the concrete floor.	—	006012	Location	1867	—	Contributing
Thompson Privy	5'-0" by 5'-0" one-story wood frame building with clapboard siding and a wood shingle roof.	—	015081	Location	1892	—	Contributing
Thompson Root Cellar	Small root cellar with concrete walls and a wood door. Cellar is missing a roof and walls are falling inward.	—	015082	Asset	543991	—	Contributing
Edwin and Lola Tobin House	25'-0" by 20'-0" one-story wood frame building with clapboard siding and an asphalt shingle gable roof.	—	015083	Location	51760	—	Contributing
Walters House	15'-0" by 22'-0" one-story wood frame building with horizontal wood siding and a standing seam shingle gable roof.	—	015063	Location	1891	—	Contributing
Vault Toilets	15'-0" by 8'-0" wood-frame irregular-plan vault toilet building.	—	—	—	2170	—	Non-Contributing

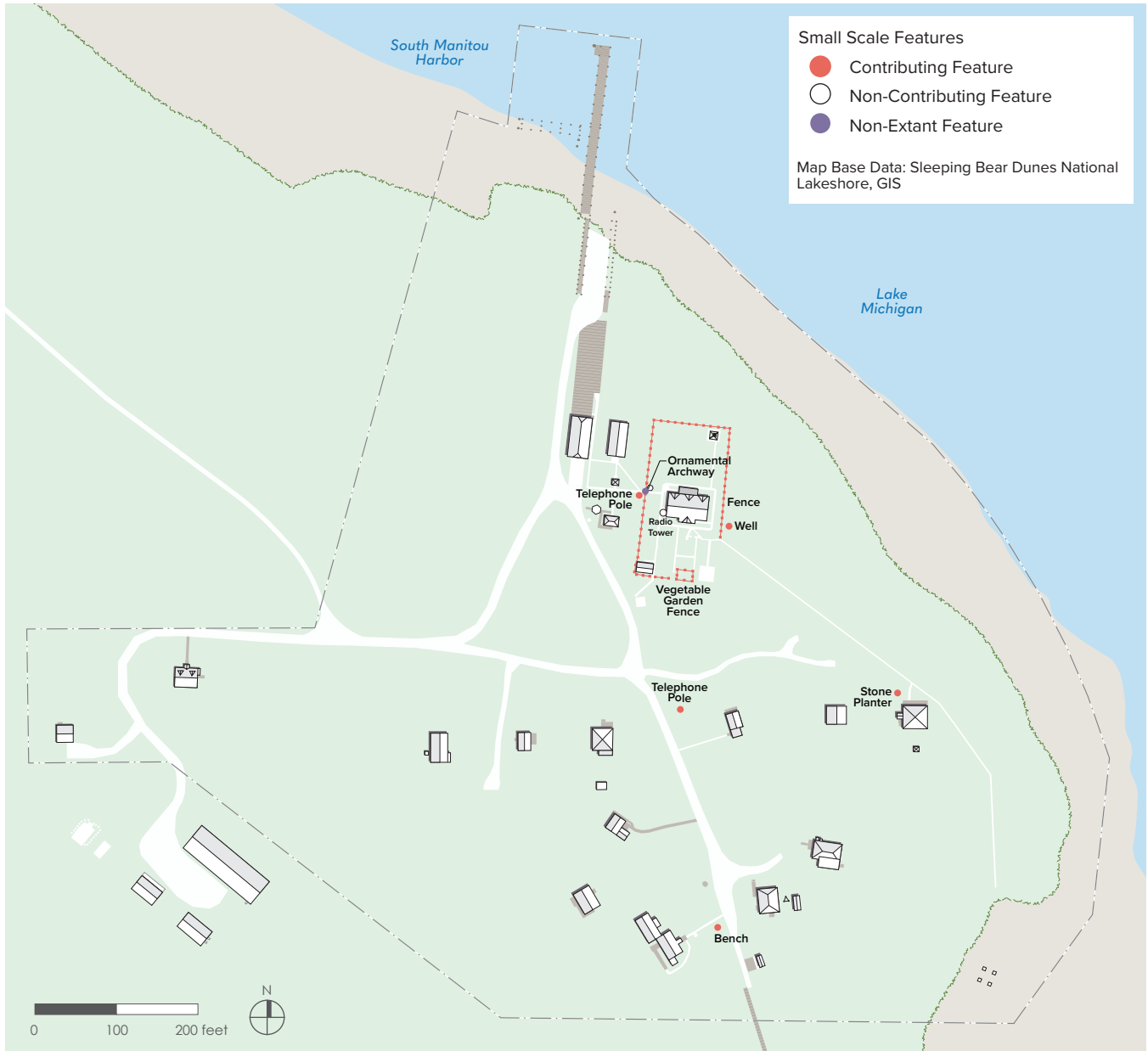


Figure 3-84. South Manitou Island Life-Saving Station and Village Contributing and Non-Contributing Small Scale Features (source: Mundus Bishop, 2025).

Small Scale Features

Small scale features were established during the period of significance to support the daily operations of South Manitou Island Life-Saving Station and residential use at village houses within the study area. Contributing features include a fence surrounding South Manitou Island Life-Saving Station grounds, a radio tower, and telephone poles.

Existing Condition

Small scale features include those extant during the period of significance and additions from after the period of significance. Contemporary small scale features serve utilitarian and visitor functions. These include NPS signs, picnic tables, benches, trash receptacles, water fountains, Radio Tower, clotheslines, and fuel tanks. NPS interpretive panels are placed on hexagon-shaped boardwalks at the Station Dwelling and Flammable Storage Shed. Contemporary small scale features are generally in good condition.

Extant small scale features at South Manitou Life-Saving Station include the fence surrounding its grounds and the historic garden south of Station Dwelling, a well, and telephone poles. Extant features at South Manitou Island Village include a stone planter at the Benth Johnson House and a bench embossed with the date 1938 (the bench appears in a c. 1946 photograph of the Station Dwelling), steam powered fog whistle (historically located atop South Manitou Island Light Station's Lighthouse), historic farm machinery, and a non-historic drinking foundation and NPS signage at the Thomas & Hattie Thompson House—South Manitou Island Post Office and General Store.



Figure 3-85. Fence, picnic tables, telephone pole, and radio tower at the Station Dwelling (source: Mundus Bishop, 2024).



Figure 3-86. Wire fence defining the vegetable garden at the Station Dwelling. Non-contributing grill/fire ring has been removed (source: Mundus Bishop, 2024).



Figure 3-87. Telephone pole with USCG plate (source: Mundus Bishop, 2024).



Figure 3-88. Fog whistle and farm machinery at the Thomas & Hattie Thompson House—South Manitou Island Post Office and General Store (source: Mundus Bishop, 2024).



Figure 3-89. Typical small scale features at Village houses (source: Mundus Bishop, 2024).

Analysis

Contributing features include fences surrounding the grounds and garden at the Station Dwelling, telephone poles, and a well. The stone planter at the Benth Johnson House likely dates to the period of significance. The concrete bench, steam powered fog whistle, and farm machinery at the Thomas & Hattie Thompson House—South Manitou Island Post Office and General Store date to the period of significance.

Small scale features varied throughout the period of significance, including non-extant features such as benches at the Station Dwelling, a drill pole (wreck pole), and other training apparatus likely located west of Boathouse #1, flag staff, sand fence, and ornamental archway at the west entrance to the Station Dwelling.



Figure 3-90. Concrete bench at the Station Dwelling, c. 1946 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).



Figure 3-91. Concrete bench at the Thomas & Hattie Thompson House—South Manitou Island Post Office and General Store (source: Mundus Bishop, 2024).



Figure 3-92. Decorative archway at the Station Dwelling, 1930 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

Treatment

Small scale features that contribute to the historic character of South Manitou Island Life-Saving Station will be preserved and compatible additions will be provided to accommodate visitor and operational functions in a manner that protects the cultural landscape and views and vistas.

Preserve and repair small scale features that contribute to the historic character of the cultural landscape, including the fence surrounding South Manitou Island Life-Saving Station grounds and its historic garden, a well, telephone poles, stone planter at the Benth Johnson House, and bench, steam powered fog whistle, and farm machinery at the Thomas & Hattie Thompson House—South Manitou Island Post Office and General Store.

Allow the addition of compatible small scale features that facilitate visitor and operational use and are compatible with the historic character.

- Ensure the design and placement of new small features do not detract from the historic setting.
- Ensure new features respect the established spatial organization and do not diminish or obstruct views.
- Ensure new features respect but do not imitate historic features, are designed in a contemporary style, and are products of their own time. Avoid introducing new features that convey a false sense of history.

Maintain non-contributing features that provide a needed function (e.g., propane tanks, picnic tables, signage).

Allow for the reestablishment of an ornamental archway at the west entrance to the Station Dwelling.

- Design the archway in a contemporary style compatible with the historic setting. Incorporate basic components of the historic arbor based on historical photos, including a set of unadorned arches connected by horizontal slats, and is similar in height, mass, and scale.

Allow for the reestablishment of international maritime flags at the Storm Signal Tower and Flag Locker for interpretation.

Allow signage at select locations for wayfinding and interpretation if the number is minimized, and the design and placement do not detract from the historic setting.

Provide and maintain non-contributing operational features that provide a needed function—e.g., utilities.

- Ensure the placement of new infrastructure does not detract from the historic setting, does not diminish or obstruct view or vistas, and does not negatively interrupt the visitor experiences—e.g., views and sounds.
- Ensure infrastructure is of a scale, material, and color that harmonizes with the historic setting and aesthetic.

Table 3-5. Small Scale Contributing Features

Feature	Description	CRIS-CL Resource ID	CRIS-HS Resource ID	FMSS Record Type	FMSS Record Number	Condition	Contributing/ Non-Contributing
South Manitou Island Life-Saving Station Fence	Concrete post and black metal chain fence defining 240'-0" by 465'-0" of grounds surrounding Station Dwelling. Square concrete posts are typically 2'-6" in height and taper from 5" at the top to 8" at the bottom. Posts are placed 8'-3" apart with black metal chains hanging loosely between posts. Corner posts are not tapered and have square caps 2" in height.	—	006011	Asset	543838	Good	Contributing
Station Dwelling Garden Fence	Concrete post with wire fence between posts.	—	—	—	—	Good	Contributing
Telephone Poles	Wood telephone poles throughout study area.	—	—	—	—	Varies	Contributing
South Manitou Island Life-Saving Station Contemporary Features	NPS signs, picnic tables, benches, trash receptacles, water fountains, radio tower, and hexagonal boardwalks. Features were placed for contemporary visitor and operational use after the period of significance.	—	—	—	—	Varies	Non-Contributing
South Manitou Island Contemporary Features	Picnic tables, clothes lines, fuel tanks, and other features at house sites.	—	—	—	—	Varies	Non-Contributing
Benth Johnson House Stone Planter	Stone planter.	—	—	—	—	Good	Contributing
Thomas & Hattie Thompson House—South Manitou Island Post Office and General Store	Concrete bench, steam powered fog whistle, and farm machinery date to the period of significance.	—	—	—	—	Varies	Contributing

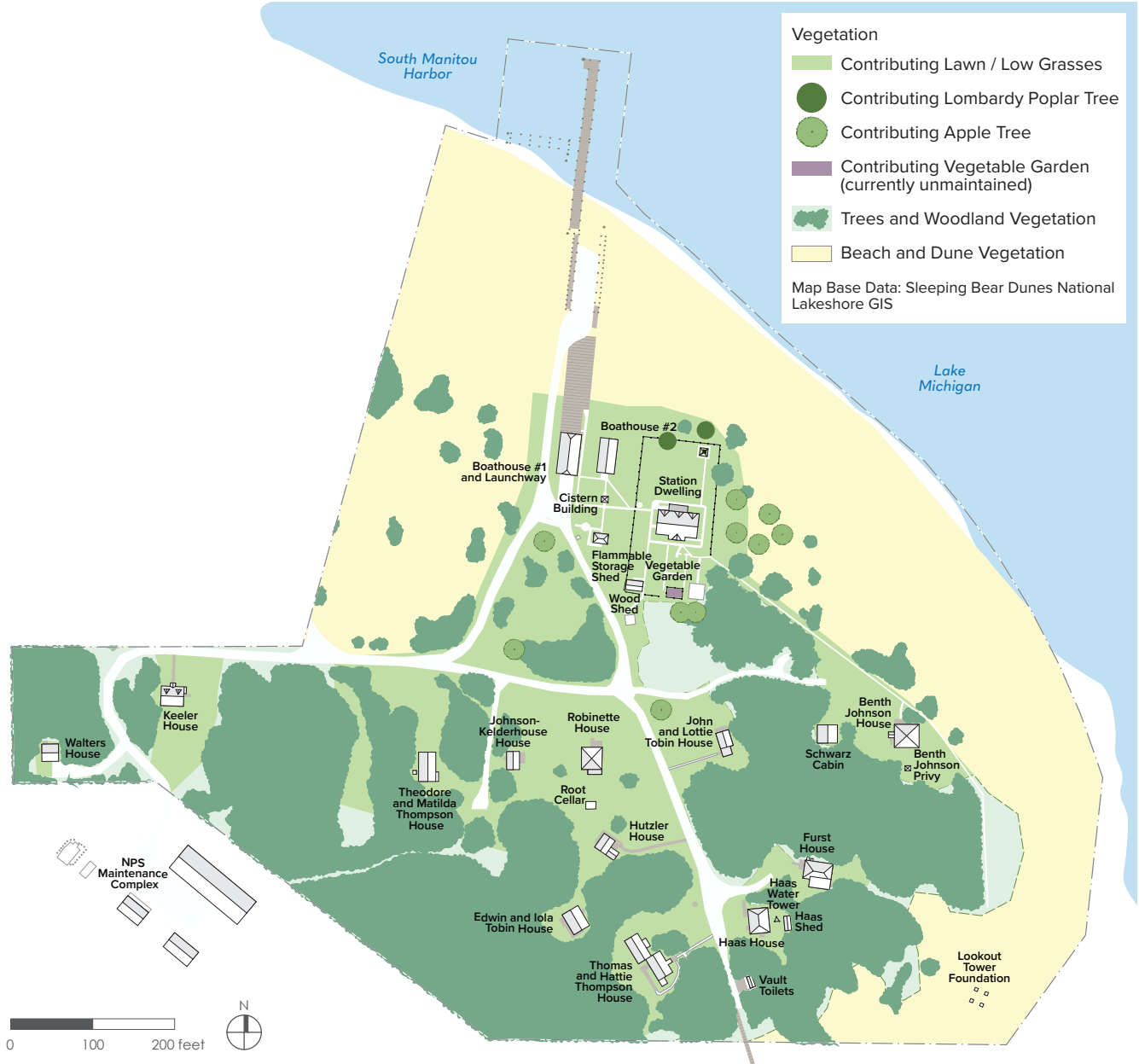


Figure 3-93. South Manitou Island Life-Saving Station and Village Contributing and Non-Contributing Vegetation (source: Mundus Bishop, 2025).

Vegetation

The planting design during the period of significance was minimal and reflected a formal military aesthetic of trimmed lawns and Lombardy poplar trees planted in straight rows. Lombardy poplar trees, lawns, low grasses, the defined area of the historic vegetable garden, and apple trees contribute to the historic design of the study area.

Existing Condition

Vegetation includes lawns, shrubs, mature trees, and native dune and woodland vegetation. Lawns and low grasses surround buildings within the study area. Mature trees include Lombardy poplar (*Populus nigra*), jack pine (*Pinus banksiana*), white pine (*Pinus strobus*), balsam fir (*Abies balsamea*), paper birch (*Betula papyrifera*), white cedar (*Thuja occidentalis*), and apple trees.

Dune and beach vegetation is dominated by American beachgrass and other grasses, sedges, forbs, and woody plants. Common species include deer tongue, sedges (*Carex* spp.), beach pea, common silverweed, yellow salsify (*Trapogon dubis*), great mullein (*Verbascum thapsus*), northern white cedar (*Thuja occidentalis*), smooth rose (*Rosa blanda*), poison ivy (*Toxicodendron radicans*), and Pitcher's thistle (*Cirsium pitcheri*). This area is important habitat for Pitcher's thistle is a federal and state threatened species.

Analysis

The historic planting design of South Manitou Island Life-Saving Station was minimal. Recommendations for the design of the grounds were not extensive but came with standard USCG guidance: "the grounds shall present a neat appearance, rough places shall be leveled, lawns and shrubbery, if any, shall be trimmed."

The sand and absence of topsoil at South Manitou Island Life-Saving Station created difficult conditions for establishing a formal landscape. Sod was placed within the fenceline of the Station Dwelling and groundcover transitioned to low grasses and native dune species outside the fenceline.



Figure 3-94. Mown lawn and Lombardy poplar trees at the Station Dwelling (source: Mundus Bishop, 2024).



Figure 3-95. Lawn and low grasses at house sites (source: Mundus Bishop, 2024).



Figure 3-96. Plantings at house sites were minimal with clear views from South Manitou Life-Saving Station to house sites, 1927 (source: National Visual Inventory Cards, Sleeping Bear Dunes National Lakeshore).

The areas around the structures were landscaped with Lombardy poplar trees, a signal to ship captains that a life-saving station was nearby. The tree species was often selected at life-saving stations for their ability to provide shade without obstructing views of Lake Michigan, to delineate property boundaries, and to serve as wind breaks. The location and number of Lombardy poplar trees varied throughout the period of significance, with Lombardy poplar trees appearing

in different configurations on all sides of the Station Dwelling.^{3.12}

Additional plantings at the Station Dwelling included apple trees, shrubs along its foundation, trees planted in a uniform grid pattern west of the building, and a vegetable garden to the south of the building. Two Lombardy poplar trees remain north of the Station Dwelling and the vegetable garden remains and

3.12 Herd, William and Kimberly Mann. *National Historic Landmark Nomination: North Manitou Island Lifesaving Station*. (Washington, D.C: 1998), 13.

is planted each summer by NPS employees and volunteers. Species of vegetables planted during the period of significance are undocumented.

Historic photographs indicate that shrubs and trees within the study area were sparse. The area was timbered by the 1840s, with few trees established at village house sites. Village house sites included apple trees, ornamental plantings, and vegetable gardens. Vegetation at village house sites is modified by the encroachment of woodland vegetation into the open setting of individual house sites and lands between village house sites and South Manitou Island Life-Saving Station.

Extant lawn, low grasses, Lombardy poplar trees, and the vegetable garden at the Station Dwelling and apple trees throughout the study area contribute to the historic character of South Manitou Island Lifesaving Station.

Treatment

The minimal planting design and formal military aesthetic of trimmed lawns and trees planted in straight rows established during the period of significance will be repaired and maintained to reflect the design and use of South Manitou Island Life-Saving Station and Village.

Preserve extant apple trees that date from the period of significance.

- Continue practices to ensure fruit production of heirloom apple species on South Manitou Island. Continue to inventory and monitor trees. Prune trees to ensure continued fruit production and graft for in-kind replacement.

Preserve Lombardy poplar trees north of the Station Dwelling, continuing to perform routine pruning to maintain tree form and health. Do not replace in current locations north of the Station Dwelling when they become hazards or die to maintain clear sight lines to South Manitou Harbor, Manitou Passage, and Lake Michigan from Station Dwelling.

Repair historic patterns of non-extant allees at the Station Dwelling. Select trees of a similar columnar form to historic allees that are tolerant of high wind and sandy conditions with a tap root and slower growth rate. Consider species such as *Quercus 'Crimschmidt'*, *Populus x canescens 'Tower'* and *Populus tremula 'Erecta'* as alternatives to Lombardy poplar trees.

- Ensure consistent tree spacing and species selection and consider views and spatial patterns when replacing or determining locations of new trees.
- Consider archeobotanical sampling techniques to identify and confirm historic tree species present during the period of significance.
- Perform pruning and thinning to maintain tree form and health. Replace mature trees when they become hazards or die. Allow new infill trees in anticipation of aging or hazard tree removal.
- Mow around trees to prevent establishment of volunteer trees.



- Repair the historic tree allee at Staton Dwelling
 - Preserve existing Lombardy poplar trees and do not replace in current locations
 - Preserve extant apple trees
 - Maintain the lawn surrounding Station Dwelling
- Maintain grass free of shrubs and trees at leech field sites
 - Preserve managed grassland and garden vegetation
 - Preserve native beachgrass dune vegetation
 - Maintain fire buffers at buildings and structures

Figure 3-97. South Manitou Island Life-Saving Station and Village Vegetation Treatment (source: Mundus Bishop, 2025).

Maintain the lawn surrounding the Station Dwelling within the perimeter fence.

- Repair the lawn to have a smooth, even grade with an even grass cover. Maintain the lawn with a low (3-inch) cut. Trim lawn away from edges of concrete walks and concrete curb to maintain a neat appearance.
- Monitor for weeds and bare patches. Repair damaged areas and maintain the lawn with an even cover of grass. Remove invasive and volunteer plants from the lawn.
- Maintain the area outside the fence with native low-growing grasses.

Preserve and maintain the vegetable garden south of the Station Dwelling. Consider archeobotanical sampling techniques to identify plant species present during the period of significance.

Maintain historic patterns of open landscape surrounding South Manitou Island Life-Saving Station buildings.

- Perform pruning and thinning to maintain 65' minimum fire buffers, to maintain tree form and health, to prevent damage to buildings and structures, and to maintain mature trees that provide windbreaks.
- Ensure removal of vegetation does not contribute to erosion or slope instability. Avoid leaving areas of vegetation removal bare. Establish ground cover using park-approved grasses or groundcovers to maintain the open setting while holding soil in place.

Repair historic patterns of open landscape surrounding South Manitou Island Village house sites. Manage vegetation to repair views to adjacent homes, South Manitou Island Life-Saving Station, and South Manitou Harbor and Lake Michigan.

- Perform pruning and thinning to maintain 65' minimum fire buffers, to maintain tree form and health, to prevent damage to buildings and structures, and to maintain mature trees that provide windbreaks. Ensure removal of vegetation does not contribute to erosion or slope instability. Avoid leaving areas of vegetation removal bare. Establish ground cover using park-approved grasses or groundcovers to maintain the open setting while holding soil in place.
- Provide a park-approved seed mixture of native and hardy sod-forming grasses and forbs with a maintained lawn appearance. Allow grasses to seed periodically. Monitor for weeds and bare patches. Repair damaged areas and maintain the lawn with an even cover of grass. Remove invasive and volunteer plants from the lawn.
- To the greatest extent possible, use mechanical methods over chemical methods to manage non-native invasive species.
- Maintain native and hardy grasses free of shrubs and trees at leech field sites.

Preserve established native vegetation where it does not damage the integrity of historic views or the spatial organization of the cultural landscape.

Protect native dune vegetation and discourage visitor use and the creation of social trails in dunes.

Table 3-6. Vegetation Contributing Features

Feature	Description	CRIS-CL Resource ID	CRIS-HS Resource ID	FMSS Record Type	FMSS Record Number	Condition	Contributing/ Non-Contributing
Lombardy Poplar Trees	Two Lombardy poplar trees at Station Dwelling.	—	—	—	—	Good	Contributing
Vegetable Garden	Vegetable garden at Station Dwelling. The vegetable garden remains defined by a fence and is planted each summer by NPS staff and volunteers.	—	—	—	—	Good	Contributing
Lawn and Low Grasses	Mown lawn and low grasses surrounding buildings.	—	—	—	—	Varies	Contributing

4

Implementation

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Implementation Guidance

Further Research and Investigation Recommendations

The following research and investigation are recommended to inform future planning, design, and management of South Manitou Island Life-Saving Station and Village.

- Conduct further archeological investigations to identify archeological sites and additional information related to South Manitou Island Life-Saving Station and Village, e.g., walks, outbuildings, patrol posts, etc., in collaboration with the NPS Midwest Archeological Center (MWAC) and federally recognized tribes.
- Document and further research ruins and other resources discovered through vegetation management and other park activities.

Implementation Priorities

The NPS will consider recommendations identified in this plan as funding becomes available. Treatment guidance is described as a series of prioritized work orders with subtasks identified. Work plans are organized by site and correspond with class “C” cost estimates included in this chapter. This will assist the park in preparing Project Management Information System (PMIS) project statements to seek project funding.

- Phase 1 work plans include actions that are critical for repair of contributing features or are needed for safety, access, and interpretation at sites with high visitation.
- Phase 2 work plans include actions needed to preserve integrity.
- Phase 3 work plans include long-term, routine maintenance.

Table 4-1. Implementation

Priority	FMSS Data			Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary			
	FMSS Number	Feature Name	IN FMSS?	CLR Treatment Project Component Task / FMSS Work Order	FMSS Work Type / Sub-Type	Contributing/ Non-Contributing	Recurring Maintenance Needed
Natural Systems and Features							
3	Park to assign	Park to assign	N	Protect and enhance federally listed species known to be present in the study area, including pitcher's thistle (<i>Cirsium pitcheri</i>) and Piping Plover (<i>Charadrius melodus</i>). Conduct regular field surveys to verify known and record new occurrences of pitcher's thistle and piping plover. Manage Lombardy poplar trees as invasive species within the beach and dune zone.	Facility Maintenance / Deferred Maintenance	Non-Contributing	Y
Spatial Organization, Topography, and Views							
2	Park to assign	Park to assign	N	Maintain clear sight lines to South Manitou Harbor, Manitou Passage, and Lake Michigan. Prune and selectively remove vegetation to maintain and repair these views.	Facility Maintenance / Deferred Maintenance	Contributing	Y
2	Park to assign	Park to assign	N	Maintain clear sight lines to South Manitou Harbor, Manitou Passage, and Lake Michigan from the Station Dwelling, Boathouse #1, Boathouse #2, Flag Tower and Flag Locker, and between these buildings and structures. Prune and selectively remove vegetation to maintain and repair these views.	Facility Maintenance / Deferred Maintenance	Contributing	Y
1	Park to assign	Park to assign	N	Maintain 65-foot (minimum) fire buffers around buildings.	Facility Maintenance / Deferred Maintenance	Contributing	Y
1	Park to assign	Park to assign	N	Ensure positive drainage away from building foundations, regrading the topography as needed.	Facility Maintenance / Deferred Maintenance	Non-Contributing	Y

Table 4-1. Implementation (continued)

Priority	FMSS Data			Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary			
	FMSS Number	Feature Name	IN FMSS?	CLR Treatment Project Component Task / FMSS Work Order	FMSS Work Type / Sub-Type	Contributing/ Non-Contributing	Recurring Maintenance Needed
Circulation							
3	1888	South Manitou Island Life-Saving Station Walks	Y	Preserve the historic width, alignment, and material of contributing concrete walks. Repair contributing concrete walks, ensuring level surfaces and grades for accessibility and safety.	Facility Maintenance / Deferred Maintenance / Capital Improvement	Contributing	Y
	Park to assign	South Manitou Island Life-Saving Station to Lookout Tower Foundation Walk	N	Preserve the historic width, alignment, and material of contributing concrete walks.	Facility Maintenance / Deferred Maintenance	Contributing	
	Park to assign	Sand and Gravel Routes	N	Preserve sand and gravel routes.	Facility Maintenance / Deferred Maintenance	Contributing	Y
3	Park to assign	ABAAS Routes	N	Consider providing ABAAS compliant routes to sites throughout South Manitou Island Life-Saving Station and Village, including Boathouse #1, Haas House, Thomas and Hattie Thompson House, and the comfort stations.	Capital Improvement	Non-Contributing	Y
3	Park to assign	Hardpack Surface Turnaround and Boardwalk	N	Consider formalizing a turnaround with hardpack surface south of South Manitou Island Life-Saving Station to provide vehicles with adequate space to drop-off visitors and turn around. Consider a boardwalk to maintain pedestrian access through South Manitou Island Village during flood events.	Capital Improvement	Non-Contributing	Y

Table 4-1. Implementation (continued)

Priority	FMSS Data			Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary			
	FMSS Number	Feature Name	IN FMSS?	CLR Treatment Project Component Task / FMSS Work Order	FMSS Work Type / Sub-Type	Contributing/ Non-Contributing	Recurring Maintenance Needed
Building and Structures							
2	543991	Thompson Root Cellar	Y	Consider stabilization of the Thompson Root Cellar to prevent further deterioration of the structure.	Facility Maintenance / Deferred Maintenance	Contributing	Y
2	015061	Lookout Tower Foundation.	Y	Apply a clear, penetrating water repellent sealer with corrosion inhibitor.	Facility Maintenance / Deferred Maintenance	Contributing	Y
Small Scale Features							
3	Park to assign	Park to assign	N	Allow for the reestablishment of an ornamental archway at the west entrance to the Station Dwelling.	Facility Maintenance / Deferred Maintenance	Non-Contributing	Y
3	543275	Storm Signal Tower and Flag Locker	Y	Allow for the reestablishment of international maritime flags.	Capital Improvement	Contributing	Y
Vegetation							
3	Park to assign	Park to assign		Preserve extant apple trees that date from the period of significance.	Facility Maintenance / Deferred Maintenance	Contributing	Y
3	Park to assign	Park to assign		Preserve Lombardy poplar trees north of the Station Dwelling, continuing to perform routine pruning to maintain tree form and health. Do not replace in current locations north of the Station Dwelling when they become hazards or die.	Facility Maintenance / Deferred Maintenance	Contributing	Y
2	Park to assign	Park to assign	N	Repair historic patterns of tree allees at Station Dwelling.	Capital Improvement	Contributing	Y

Table 4-1. Implementation (continued)

Priority	FMSS Data			Cultural Landscape Feature to FMSS Data Crosswalk - Treatment Summary			
	FMSS Number	Feature Name	IN FMSS?	CLR Treatment Project Component Task / FMSS Work Order	FMSS Work Type / Sub-Type	Contributing/ Non-Contributing	Recurring Maintenance Needed
2	Park to assign	Park to assign		Preserve and maintain the vegetable garden south of the Station Dwelling.	Facility Maintenance / Deferred Maintenance	Contributing	Y
1	Park to assign	Park to assign	N	Maintain historic patterns of open lawn surrounding South Manitou Island Life-Saving Station and Village buildings. Provide a park-approved seed mixture of native and hardy sod-forming grasses and forbs with a maintained lawn appearance.	Facility Maintenance / Deferred Maintenance	Contributing	Y

Class C Cost Estimate

AE IGE Checklist

Architect/Engineer (AE) to review and complete prior to each submission to NPS.

Class C Estimate

Has estimator reviewed NPS Estimating Requirements Handbook prior to starting estimate?	Yes
Has estimator visited the project site and checked existing conditions, scopes of work, and other site visit requirements?	No
Has a second estimator reviewed this estimate for accuracy and formatting?	Yes
Has estimate been checked for formula errors throughout?	Yes
Using the Wage Factor worksheet/tab, has State Wage decision been compared to Federal Wage decision and adjusted if needed?	Yes
Have production rates have been reviewed and adjusted appropriately for this project?	Yes
Have calls been made for pricing for large commodity items, i.e. asphalt, within the project area?	Yes
Has AE firm conducted a quality assurance (QA) review and made appropriate adjustments to this estimate prior to submission NPS?	Yes

Basis of Estimate and Cost Summary - Project Information

Park Acronym:	SLBE
Park Name:	Sleeping Bear Dunes National Lakeshore
Project Title:	South Manitou Island Cultural Landscape Report
Park Management Information System (PMIS) Number:	TBD
Design Phase:	Cultural Landscape Report
State:	Michigan
County work location:	Leelanau County
Database Name:	ACC Proprietary Database
Database Year:	2026
Estimate Type:	Class C Estimate
Current Estimate Date:	2/11/2026
Construction Start Date:	5/1/2026
Project Period of Performance (Months):	9
Architect/Engineer (A/E) Company:	Mundis Bishop
Estimating Company:	ACC Cost Estimating
Estimator Name:	Todd Slater
Estimate Reviewed By:	Seth Pszczolkowski
Estimate Reviewed Date:	2/11/2026
Estimator Phone:	503-718-0075
Project Description (Scope of Work):	This CLR addresses the preservation and protection of the cultural landscape of South Manitou Island Life-Saving Station and Village. This document provides baseline documentation, records changes to the cultural landscape over time, supplements existing historical data, provides recommendations for further study, and provides holistic guidance for the treatment of the cultural landscape and resource protection.
Estimate Assumptions:	Assumed Construction Start - May 2026 Assumed Project Duration - 9 Months Assumed Contracting Method - Full & Open Use 5%.
Source of Cost Data:	ACC Proprietary Database - 2026 ACC maintains a cost database dedicated to NPS projects. Pricing is derived from current market conditions through continuous contact with materials suppliers, NPS contractors, and local non-NPS contractors. The database is able to adjust for local labor rates and productivity factors. ACC uses input from separate mechanical and electrical estimators as well.
Schedule Clarification:	ACC has made its best guess at a project schedule.
Other Clarifications or Exclusions:	The American Innovation and Manufacturing (AIM) Act was enacted on December 27, 2020. In 2024, the total quantity of allowed HFC production and consumption will drop a further 30%. The final rule, signed on Oct. 5, 2023, restricts the use of higher-GWP HFCs in new aerosol, foam, and refrigeration, air conditioning, and heat pump (RACHP) products and equipment. The rule operates by prohibiting the manufacture and import of products that use higher-GWP HFCs, prohibiting the sale, distribution, and export of those products three years after the manufacture and import restriction, and prohibiting the installation of new RACHP systems that use higher-GWP HFCs. In summary, several of the HVAC systems typically used in NPS projects are required to change the refrigerant they use by January 1, 2025. These changes may impact the cost of systems and the integration of these systems into buildings. In addition, there may be impacts to lead times for equipment. Please note, that changes in refrigerants will continue to occur through 2029 as the AIM Act requires reduction of GWPs.
Documentation:	- Communication with local sales reps was conducted for specific materials pricing as warranted, to either update existing or include materials not priced.
Standard Clarifications:	<ul style="list-style-type: none"> • This estimate is the NET Construction costs of the project which includes direct cost of construction, location factor, remoteness factor, federal wage rate factor, historic preservation factor, design contingency, permitting, contracting method of procurement, testing, general conditions, bonds, permits and contractor overhead, profit, & escalation. • This estimate does NOT include Gross costs which Includes Construction Contingency and NPS Construction management. • This estimate does NOT include the Total costs of compliance, predesign, design, and supplemental services.

Project Specific Markups & Tax Allocations

Tax Allocations

- After verifying with the local tax jurisdictions and NPS tax requirements, enter **X** in fields which require project taxes. This will populate the appropriate taxes throughout the estimate.

Material	Labor	Equipment	Other
			X

Project Specific Markups

- Refer to Cost Estimating Requirements Handbook > Chapter 4 Estimate Markups for guidance on this section.**
- This chart shows how markups are applied at different phases of design.
- Add required markups in column **C** and specific descriptions in column **D**. These entries will populate throughout the estimate.
- Re-evaluate markups at each phase of design as details develop and added to the estimate. Adjust percentage as appropriate in individual CLINs.
- If no X is shown in a field, costs previously applied in the percentage need to be fully applied within the direct costs, either as actual activities or increases to individual unit costs and a 0% shown in the markups.**

Markups	Percent %	Description	Class C Conceptual	Class C Schematic	Class B Design Development	Class A Construction Documents
A	5.33%	Overwrite instructions to provide detailed description for each markup and how it was determined.	X	X	X	
B	54.25%	A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.	X	X	X	
C	0.00%	Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.	X	X	X	
D	6.00%	Using the attached Wage Rate Calculator wage rate needs to be adjusted. Applied to 60% of Other Cost.	X	X	X	
E	0.00%	Sales Tax applied to 40% of Other Cost.	X	X	X	
F	20.00%	(Approximate Range 5% to 10%) Based on level of work on historical resources	X	X	X	
		This ranges based on ASTM E2516 Expected Accuracy Ranges/Tolerance for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.	X	X	X	X
TOTAL DIRECT CONSTRUCTION COSTS						
G	24.88%	(Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.	X	X		
H	5.00%	(Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)	X	X		
I	1.00%	(Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.	X	X	X	
J	1.00%	(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.	X	X	X	
SUBTOTAL NET CONSTRUCTION COST						
K	16.00%	(Approximate Range 4% to 18%) Applicable for type and size of construction per previous park projects.	X	X	X	X
L	10.00%	Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.	X	X	X	X
M	2.00%	(Approximate Range 1% to 2.5%) Construction bonding for contractor and subcontractors. The smaller the company the higher the rate.	X	X	X	X
ESTIMATED NET CONSTRUCTION COST						
N	5.00%	Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.	X	X	X	X
O	5.00%	Aggregate Rate - Use 5% for 2026	X	X	X	X
	6	Include construction start / finish dates with duration of work in months.				
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months):						

Summary NET Cost Schedule

Park Acronym: SLBE
 Park Name: Sleeping Bear Dunes National Lakeshore
 Project Title: South Manitou Island Cultural Landscape Report
 Park Management Information System (PMIS) Number: TBD
 Current Estimate Date: 2/11/2026

- Estimator to start estimate by completing gray cells with initial project information and CLIN titles per line item designated by NPS for the project.
- Information added on this worksheet will populate the rest of the template.
- Click on the CLIN to route to corresponding CLIN worksheet/tab.

Contract Line Item Number (CLIN) & Option Number	Contract Line Item Title	Quantity	Unit of Measure	Unit Price	Total Price
CLIN 1	Benth Johnson House/Privy	1	Lump Sum (LS)	28,906	\$28,906.07
CLIN 2	John and Lottie Tobin House	1	Lump Sum (LS)	66,084	\$66,084.13
CLIN 3	Furst House	1	Lump Sum (LS)	65,428	\$65,427.93
CLIN 4	Haas House/Shed	1	Lump Sum (LS)	265,559	\$265,559.23
CLIN 5	Thomas and Hattie Thompson House	1	Lump Sum (LS)	455,469	\$455,469.30
CLIN 6	Edwin and Lola Tobin House	1	Lump Sum (LS)	130,856	\$130,855.86
CLIN 7	Hutzler House	1	Lump Sum (LS)	66,254	\$66,254.21
CLIN 8	Robinette House	1	Lump Sum (LS)	26,528	\$26,527.77
CLIN 9	Root Cellar	1	Lump Sum (LS)	14,482	\$14,481.51
CLIN 10	Johnson-Kelderhouse House	1	Lump Sum (LS)	44,967	\$44,966.70
CLIN 11	Theodore and Matilda Thompson House	1	Lump Sum (LS)	70,212	\$70,211.64
CLIN 12	Keeler House	1	Lump Sum (LS)	30,485	\$30,485.19
CLIN 13	Walters House	1	Lump Sum (LS)	65,428	\$65,427.93
CLIN 14	Vault Toilets	1	Lump Sum (LS)	226,105	\$226,104.54
CLIN 15	SMI Life-Saving House	1	Lump Sum (LS)	1,854,962	\$1,854,961.57
TOTAL BASE PRICE (CLINs 1 to 15):					\$3,411,723.58

CLIN NET Cost Summary

Project Title: South Menloou Island Cultural Landscape Report
 Park Name: Sleeping Bear Dunes National Lakeshore

Park Management Information System (PMIS) Number: TBD
 Park Acronym: SLBE

Bid Item Number	Bid Item Description	Overall Quantity	Unit of Measure	Total Material Cost	Total Labor Cost	Total Equipment Cost	Total Other Cost	Total Direct Construction Costs	Total Markups	NET Bid Item Total	NET Bid Item Unit Cost
CLIN 1	Benth Johnson House/Privy	1	Lump Sum (LS)	\$ 150	\$ 1,350	\$ -	\$ -	\$ 8,768	\$ 20,140	\$ 28,906	\$ 28,906
CLIN 2	John and Lottie Tobin House	1	Lump Sum (LS)	\$ 350	\$ 3,150	\$ -	\$ -	\$ 20,041	\$ 46,044	\$ 66,084	\$ 66,084
CLIN 3	Furst House	1	Lump Sum (LS)	\$ 410	\$ 3,690	\$ -	\$ -	\$ 19,850	\$ 45,578	\$ 65,428	\$ 65,428
CLIN 4	Haas House/Sheed	1	Lump Sum (LS)	\$ 640	\$ 5,760	\$ -	\$ -	\$ 80,432	\$ 185,127	\$ 265,559	\$ 265,559
CLIN 5	Thomas and Hattie Thompson House	1	Lump Sum (LS)	\$ 1,670	\$ 15,030	\$ -	\$ -	\$ 121,327	\$ 317,442	\$ 455,469	\$ 455,469
CLIN 6	Edwin and Iola Tobin House	1	Lump Sum (LS)	\$ 820	\$ 7,380	\$ -	\$ -	\$ 39,700	\$ 91,156	\$ 130,856	\$ 130,856
CLIN 7	Hurzer House	1	Lump Sum (LS)	\$ 410	\$ 3,690	\$ -	\$ -	\$ 20,100	\$ 46,154	\$ 66,254	\$ 66,254
CLIN 8	Robinetta House	1	Lump Sum (LS)	\$ 180	\$ 1,620	\$ -	\$ -	\$ 8,050	\$ 18,478	\$ 26,528	\$ 26,528
CLIN 9	Root Cellar	1	Lump Sum (LS)	\$ 140	\$ 1,260	\$ -	\$ -	\$ 4,400	\$ 10,082	\$ 14,482	\$ 14,482
CLIN 10	Johnson-Kelderhouse House	1	Lump Sum (LS)	\$ 340	\$ 3,060	\$ -	\$ -	\$ 13,650	\$ 31,317	\$ 44,967	\$ 44,967
CLIN 11	Thredore and Melilla Thompson House	1	Lump Sum (LS)	\$ 430	\$ 3,870	\$ -	\$ -	\$ 21,300	\$ 48,912	\$ 70,212	\$ 70,212
CLIN 12	Kelder House	1	Lump Sum (LS)	\$ 200	\$ 1,800	\$ -	\$ -	\$ 7,250	\$ 21,255	\$ 30,485	\$ 30,485
CLIN 13	Walters House	1	Lump Sum (LS)	\$ 410	\$ 3,690	\$ -	\$ -	\$ 19,850	\$ 45,378	\$ 65,428	\$ 65,428
CLIN 14	Vault Toilets	1	Lump Sum (LS)	\$ 410	\$ 3,690	\$ -	\$ -	\$ 64,464	\$ 137,640	\$ 226,105	\$ 226,105
CLIN 15	SMT Life-Saving House	1	Lump Sum (LS)	\$ 390	\$ 3,510	\$ -	\$ -	\$ 961,290	\$ 1,293,671	\$ 1,854,962	\$ 1,854,962
Total CLIN Items:				\$ 6,950	\$ 62,550	\$ -	\$ -	\$ 1,033,170	\$ 2,378,563	\$ 3,411,724	\$ 3,411,724
								Total Base Costs:	\$	\$	

Estimate Type: **Class C Estimate**

CLIN Number: **CLM 1**
 CLIN Title: **Benth Johnson house/Privy**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Estimator Name: **Todd Sliser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seih Pzozzkowski**
 Estimate Reviewed Date: **2/11/2026**

[GO TO Cost Schedule](#)

- No Abbreviations or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D10	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G100	Site Demolition & Replacements	2	Ea	\$0	\$0	\$0	\$2,500	\$2,500	\$2,500
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Limbing	25	LF	\$0	\$0	\$0	\$12.50	\$313	\$313
MF-2004 Code	Preserve Concrete Walks - Clear Path	1	Load	\$150	\$1,350	\$0	\$0	\$1,500	\$1,500
MF-2004 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Replacements	1	LS	\$150	\$1,350	\$0	\$2,512.50	\$4,012.50	\$4,313
G100	Site Earthwork	1	Sum	\$0	\$0	\$0	\$2,500	\$2,500	\$2,500
MF-2004 Code	Site SC - Allowance	1	Ea	\$0	\$0	\$0	\$2,500	\$2,500	\$2,500
MF-2004 Code	Mobilization/De-Mobilization	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Site Earthwork	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0	\$0	\$0	\$2,500	\$2,500	\$2,500
G300	TOTAL SITE PREPARATION	1	LS	\$150	\$1,350	\$0	\$2,512.50	\$4,012.50	\$4,313
G300	Predietion Paving	25	LF	\$0	\$0	\$0	\$12.50	\$313	\$313
MF-2004 Code	Repair Concrete Walks - 25%	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Predietion Paving	1	LS	\$0	\$0	\$0	\$2,500	\$2,500	\$2,500
Subtotal	Predietion Paving	1	LS	\$0	\$0	\$0	\$2,500	\$2,500	\$2,500
G600	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$150	\$1,350	\$0	\$2,512.50	\$4,012.50	\$4,313
TAXES				\$0	\$0	\$0	\$0	\$0	\$0
TOTAL NET CONSTRUCTION				\$150	\$1,350	\$0	\$2,512.50	\$4,012.50	\$4,313

MARKUP PRECENTAGES will initially be populated from the **Markups** worksheets but can be overwritten as the design is developed or for changing requirements of the individual CLIN.

MARKUPS and Factors

DESCRIPTION

A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.

Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.

Using the attached Wage Rate Calculator, wage rate needs to be adjusted. Applied to 60% of Other Cost.

(Approximate Range 5% to 10%) Based on level of work on historical resources

This ranges based on ASTM E2516 Expected Accuracy Range/Tolerance for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.

(Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.

(Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)

MARKUP ALLOWED	MARKUP TYPES	MARKUP PERCENTAGE	TOTALS
A	Class C B	Park Location Factor (PLF):	\$466.87
B	Class C B	Project Specific Remoteness:	\$4,755.35
C	Class C B	Federal Wage Rate Factor:	\$0.00
D	Class C B	State & Local Taxes:	\$0.00
E	Class C B	Historic Preservation Factor:	\$0.00
F	Class C B/A	Design Contingency:	\$173.13
G	Class C	Standard General Conditions:	\$15,916.35
H	Class C	Government General Conditions:	\$3,969.74
Total Direct Construction Costs:			\$795.77

TOTAL NET CONSTRUCTION \$4,766.07

Variance Check: \$28,906.07

(Check for formula errors if cell is RED)

Estimate Type: **Class C Estimate**

CLIN Number: **CLM 1**
 CLIN Title: **Benth Johnson House/Privy**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump-Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seih Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[GOLD Cost Schedule](#)

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
I	Class C.B Testing & Inspections:	1.00%													
J	Class C.B Permits & Fees:	1.00%													
K	Class C.B.A Home Office Overhead:	16.00%													
L	Class C.B.A Profit:	10.00%													
M	Class C.B.A Performance Bond:	2.00%													
N	Class C.B.A Contracting Method Adjustment:	5.00%													
O	Class C.B.A Inflation Escalation Annual Rate:	5.00%													
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months): 6															
												Subtotal NET Construction Cost:			
												Estimated NET Construction Cost:			
												Total Estimated NET Cost of Construction:			
												Variance Check:			
												\$28,906.07		\$28,906.07	
												3.00%		(Check for formula errors / cell/s RED)	

Estimate Type: **Class C Estimate**

Overall Quantity: 1
 Unit of Measure: Lump-Sum (LS)
 Asset Code: 4100 Building
 Facility Type: 4110 Office

Estimator Name: Todd Sleser
 Current Estimate Date: 2/11/2026
 Estimate Reviewed By: Seth Prazdzkowski
 Estimate Reviewed Date: 2/11/2026

Overall Period of Performance: 9
 Individual CLIN Period of Performance (as needed):

GOLO
 Cost Schedule

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/B numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D10	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G100	Site Demolition & Relocations	7	Ea	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Limbing	65	LF	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Preserve Concrete Walks - Clear Path	2	Load	\$350	\$1,575.00	\$0	\$0	\$1,925.00	\$1,925.00
MF-2004 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$350.00	\$1,575.00	\$0.00	\$0.00	\$1,925.00	\$1,925.00
G100	Site Earthwork	1	Sum	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Site Excavation	1	Sum	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Site Backfill	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G300	TOTAL SITE PREPARATION	1	LS	\$350.00	\$1,575.00	\$0.00	\$0.00	\$1,925.00	\$1,925.00
G300	Pedestrian Pathway	65	LF	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Repair Concrete Walks	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Repair Concrete Walks	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Pedestrian Pathway	1	LS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
G400	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G400	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G400	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G600	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G800	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS \$350.00 \$1,575.00 \$0.00 \$0.00 \$1,925.00									
TAXES \$0.00 \$0.00 \$0.00 \$0.00 \$0.00									
Total Direct Construction: \$20,041.13 \$66,084.13 \$66,084.13									
Total NET CONSTRUCTION: \$20,041.13 \$66,084.13 \$66,084.13									

MARKUP TYPES	MARKUP PERCENTAGES	DESCRIPTION
A	5.33%	Park Location Factor (PLF): A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.
B	54.25%	Project Specific Remoteness: Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access, includes Barge/Transport Costs.
C	0.00%	Federal Wage Rate Factor: Using the attached Wage Rate Calculator, wage rate needs to be adjusted. Applied to 60% of Other Cost.
D	6.00%	State & Local Taxes: Material: 0 Labor: 0 Equipment: 0 Other: x
E	0.00%	Historic Preservation Factor: (Approximate Range 5% to 10%) Based on level of work on historical resources
F	20.00%	Design Contingency: This ranges based on ASTM E2516 Expected Accuracy Ranges for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.
G	24.88%	Standard General Conditions: (Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.
H	5.00%	Government General Conditions: (Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)

MARKUP PRECENTAGES will initially be populated from the Markups worksheets but can be overwritten as the design is developed or for changing requirements of the individual CLIN. (Check for formula errors if cell is RED)

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 2**
 CLIN Title: **John and Lottie Tobin House**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump-Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seih Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[GOLD Cost Schedule](#)

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or Pkg numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
I	Class C.B Testing & Inspections:	1.00%	(Approximate Range 1% to 3%)												\$363,856
J	Class C.B Permits & Fees:	1.00%	(Approximate Range 0% to 2%)												\$363,856
K	Class C.B.A Home Office Overhead:	16.00%	(Approximate Range 4% to 18%)												\$47,984.76
L	Class C.B.A Profit:	10.00%	Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.												\$7,677.56
M	Class C.B.A Performance Bond:	2.00%	(Approximate Range 1% to 2.5%)												\$4,798.47
N	Class C.B.A Contracting Method Adjustment:	5.00%	Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.												\$959,609
O	Class C.B.A Inflation Escalation Annual Rate:	5.00%	Aggregate Rate - Use 5% for 2026												\$3,071.02
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months):															6
Include construction start / finish dates with duration of work in months.															
Estimated NET Construction Cost:															\$1,420.47
Subtotal NET Construction Cost:															\$7,677.56
Total Estimated NET Cost of Construction:															\$66,084.13
Variance Check:															\$31,064.13
Total percentage markup															3.02%

(Check for formula errors / cell/s RED)

Estimate Type: **Class C Estimate**

CLIN Number: CLIN 3	Overall Quantity: 1
CLIN Title: Furt House	Lump Sum (LS)
PMS Number: 18D	Asset Code: 4100 Building
	Facility Type: 4110 Office

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Estimator Name: **Todd Sliker**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[GO TO Cost Schedule](#)

- No Abbreviations or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or Pkg numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost/Unit
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C40	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G100	Site Demolition & Relocations	11	Ea	\$0	\$0	\$0	\$13,750	\$13,750	\$13,750
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Limbing	2	Load	\$4,110	\$1,845	\$0	\$0	\$5,955	\$4,110
MF-2004 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$410	\$3,690	\$0	\$13,750	\$17,850	\$17,850
G100	Site Earthwork	1	Ea	\$0	\$0	\$0	\$2,000	\$2,000	\$2,000
MF-2004 Code	Rehabilitation/De-Mobilization	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0	\$0	\$0	\$2,000	\$2,000	\$2,000
G10	TOTAL SITE PREPARATION	1	LS	\$410	\$3,690	\$0	\$15,750	\$19,850	\$19,850
G20	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$410	\$3,690	\$0	\$15,750	\$19,850	\$19,850
TAXES				\$0	\$0	\$0	\$778	\$778	\$778
TOTAL NET CONSTRUCTION				\$19,850	\$65,427.93	\$0	\$65,427.93	\$85,277.93	\$85,277.93
Variance Check:				\$65,427.93	\$65,427.93	\$0	\$65,427.93	\$65,427.93	\$65,427.93
(Check for formula errors (cell is RED))									

Markups and Factors

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED	MARKUP TYPE
A	Class C B	5.33%	Park Location Factor (PLF): A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.
B	Class C B	54.25%	Project Specific Remoteness: Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.
C	Class C B	0.00%	Federal Wage Rate Factor: Using the attached Wage Rate Calculator, wage rate needs to be adjusted. Applied to 60% of Other Cost.
D	Class C B	6.00%	State & Local Taxes: Material: 0 Labor: 0 Equipment: 0 Other: x
E	Class C B	0.00%	Historic Preservation Factor: (Approximate Range 5% to 10%) Based on level of work on historical resources
F	Class C B/A	20.00%	Design Contingency: This ranges based on ASTM E2516 Expected Accuracy Range/Tolerance for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.
G	Class C	24.88%	Standard General Conditions: (Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.
H	Class C	5.00%	Government General Conditions: (Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)
I	Class C B	1.00%	Testing & Inspections: (Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.
J	Class C B	1.00%	Permits & Fees: (Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.
TOTALS			
		\$1,057.24	
		\$10,768.63	
		\$0.00	
		\$378.00	
		\$0.00	
		\$3,970.00	
		\$56,033.87	
		\$8,962.74	
		\$1,001.19	
		\$360.24	
		\$47,508.27	

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 3**
 CLIN Title: **Furst House**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[GOLLO Cost Schedule](#)

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform IIWBS Codes (Work Breakdown Structure), click outline symbol + (plus) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION			
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost		
K	Class C.B.A Home Office Overhead:	16.00%		(Approximate Range: 4% to 18%) Applicable for type and size of construction per previous park projects.										\$7,601.32			
L	Class C.B.A Profit:	10.00%		Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.										\$4,750.83			
M	Class C.B.A Performance Bond:	2.00%		(Approximate Range: 1% to 2.5%) Construction bonding for contractor and subcontractors. The smaller the company the higher the rate.										\$950.17			
Estimated NET Construction Cost:																	
N	Class C.B.A Contracting Method Adjustment:	5.00%		Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.										\$3,040.53			
O	Class C.B.A Inflation Escalation Annual Rate:	5.00%		Aggregate Rate - Use 5% for 2026										1576.808291			
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months): 6																	
														Total Estimated NET Cost of Construction:	\$65,427.93	Total percentage markup	300%
														Variance Check:	\$819,427.93	<i>(Check for formula errors / cell/s RED)</i>	

Estimate Type: **Class C Estimate**

Overall Period of Performance: 9
 Individual CLIN Period of Performance (as needed):

Overall Quantity: 1
 Unit of Measure: Lump-Sum (LS)
 Asset Code: 4100 Building
 Facility Type: 4110 Office

Estimator Name: Todd Sliker
 Current Estimate Date: 2/11/2026
 Estimate Reviewed By: Seth Pyszczkowski
 Estimate Reviewed Date: 2/11/2026

GOLO
 Cost Schedule

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/B numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (plus) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D10	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G10	Site Demolition & Relocations	18	Ea	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Limbing	3	Load	\$213.33	\$1,920.00	\$0	\$0	\$2,133.33	\$2,133.33
MF-2004 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$640.00	\$5,760.00	\$0	\$0	\$6,400.00	\$6,400.00
G10	Site Earthwork	1	Sum	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	ESG - Allowance	1	Sum	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Stabilization/De-mobilization	350	Sq	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Clear & Grub/Grading	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G10	TOTAL SITE PREPARATION	1	LS	\$640.00	\$5,760.00	\$0	\$0	\$6,400.00	\$6,400.00
G20	Pavement Paving	150	Sf	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Gravel Paving	200	Sf	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Wedge Ramp - ADA - 5' Wide	80	Lf	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Pavement Paving	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G20	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$640	\$5,760	\$0	\$0	\$6,400	\$6,400
TAXES				\$0	\$0	\$0	\$0	\$0	\$0
TOTAL NET CONSTRUCTION				\$640.432	\$5,760.568	\$0	\$0	\$6,401.000	\$6,401.000
Variance Check:				\$265,559.23	\$265,559.23	\$0	\$0	\$265,559.23	\$265,559.23
Total Direct Construction:				\$309,432	\$309,432	\$0	\$0	\$309,432	\$309,432
Total Net Construction:				\$309,432	\$309,432	\$0	\$0	\$309,432	\$309,432
Variance Check:				\$265,559.23	\$265,559.23	\$0	\$0	\$265,559.23	\$265,559.23

MARKUP PRECENTAGES will initially be populated from the Markups worksheets but can be overwritten as the design is developed or for changing requirements of the individual CLIN.

MARKUPS and Factors

MARKUP ALLOWED	MARKUP TYPES	DESCRIPTION	Material	Labor	Equipment	Other	TOTALS
A	Class C B	Park Location Factor (PLF):	5.33%				\$4,283.94
B	Class C B	Project Specific Remoteness:	54.25%				\$43,634.48
C	Class C B	Federal Wage Rate Factor:	0.00%				\$0.00
D	Class C B	State & Local Taxes:	6.00%				\$1,776.77
E	Class C B	Historic Preservation Factor:	0.00%				\$0.00
F	Class C B/A	Design Contingency:	20.00%				\$16,086.44
G	Class C	Standard General Conditions:	24.88%				\$38,378.01
Total Direct Construction Costs:							\$309,432
Total Net Construction:							\$309,432
Variance Check:							\$265,559.23

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 4**
 Park Acronym: **SJEE**
 PMS Number: **TBD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Slater**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Paszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[Go to Cost Schedule](#)

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or Plus numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol *, (plus) to show/expand groups required for the ICE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
H	Class C Government General Conditions:	5.00%	(Approximate Range 5% to 10%)												\$7310.69
I	Class C,B Testing & Inspections:	1.00%	(Approximate Range 1% to 3%)												\$1462.14
J	Class C,B Permits & Fees:	1.00%	(Approximate Range 0% to 2%)												\$1462.14
Subtotal NET Construction Cost:															
K	Class C,B,A Home Office Overhead:	16.00%	(Approximate Range 4% to 18%)												\$30,852.29
L	Class C,B,A Profit:	10.00%	Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.												\$19,282.69
M	Class C,B,A Performance Bond:	2.00%	(Approximate Range 1% to 2.5%)												\$3,856.54
Estimated NET Construction Cost:															
N	Class C,B,A Contracting Method Adjustment:	5.00%	Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.												\$12,340.92
O	Class C,B,A Inflation Escalation Annual Rate:	5.00%	Aggregate Rate - Use 5% for 2026												6399.698024
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months):															
6															
												Total Estimated NET Cost of Construction:		\$265,559.23	
												Variance Check:		\$26,559.23	
														3.02%	
														<i>(Check for Amortization / Fee / s RED)</i>	

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 5**
 CLIN Title: **Thomas and Hattie Thomason House**
 Park Acronym: **SJDE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Lump Sum (LS)
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Slater**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seah Paszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[Go to Cost Schedule](#)

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or Plus numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform I/WBS Codes (Work Breakdown Structure), click outline symbol +, (plus) to show/expand groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform I/WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D10	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G10	Site Demolition & Relocations	46	Ea	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Lumbering	8	Load	\$208.75	\$1,670.00	\$0	\$0	\$1,878.75	\$1,878.75
MF-2004 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$1,670.00	\$15,030.00	\$0	\$0	\$16,700.00	\$16,700.00
G10	Site Earthwork	1	Sum	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	ESC - Allowance	1	Sum	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Mineralization/De-hydration	1	Ea	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Clear & Grub/Grading	1000	Sq	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Grub/Grading	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Site Earthwork	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G10	TOTAL SITE PREPARATION	1	LS	\$1,670.00	\$15,030.00	\$0	\$0	\$16,700.00	\$16,700.00
G20	Pedestrian Paving	800	Sq	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Asphalt Paving	200	Sq	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Wood Temp ADA - 5' Wide	200	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Asphalt	400	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Pedestrian Paving	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G30	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$1,670.00	\$15,030.00	\$0	\$0	\$16,700.00	\$16,700.00
TAXES				\$0	\$0	\$0	\$0	\$0	\$0
TOTAL NET CONSTRUCTION				\$1,670.00	\$15,030.00	\$0	\$0	\$16,700.00	\$16,700.00
Variance Check:				\$455,469.30	\$455,469.30	\$0	\$0	\$455,469.30	\$455,469.30
(Check for formula errors if cell is RED)									

MARKUP TYPES	MARKUP TYPES	MARKUP TYPES
A Class C B	Park Location Factor (PLF)	5.33%
B Class C B	Project Specific Remediness:	54.25%
C Class C B	Federal Wage Rate Factor:	0.00%
D Class C B	State & Local Taxes:	6.00%
E Class C B	Historic Preservation Factor:	0.00%
F Class C B A	Design Contingency:	20.00%
G Class C	Standard General Conditions:	24.88%

MARKUP PRECENTAGES will initially be populated from the **Markups worksheet** but can be overwritten as the design is developed or for changing requirements of the individual CLIN.

MARKUP TYPES	MARKUP TYPES	MARKUP TYPES
A Class C B	Park Location Factor (PLF)	5.33%
B Class C B	Project Specific Remediness:	54.25%
C Class C B	Federal Wage Rate Factor:	0.00%
D Class C B	State & Local Taxes:	6.00%
E Class C B	Historic Preservation Factor:	0.00%
F Class C B A	Design Contingency:	20.00%
G Class C	Standard General Conditions:	24.88%

A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.

Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.

Using the attached Wage Rate Calculator wage rate needs to be adjusted. Applied to 60% of Other Cost.

(Approximate Range 5% to 10%) Based on level of work on historical resources

This ranges based on ASTM E2516 Expected Accuracy Range/Tolerance for design contingency and estimators best professional judgment based on phase of design, complexity, and size of project.

(Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.

MARKUP TYPES	MARKUP TYPES	MARKUP TYPES
A Class C B	Park Location Factor (PLF)	5.33%
B Class C B	Project Specific Remediness:	54.25%
C Class C B	Federal Wage Rate Factor:	0.00%
D Class C B	State & Local Taxes:	6.00%
E Class C B	Historic Preservation Factor:	0.00%
F Class C B A	Design Contingency:	20.00%
G Class C	Standard General Conditions:	24.88%

MARKUP TYPES	MARKUP TYPES	MARKUP TYPES
A Class C B	Park Location Factor (PLF)	5.33%
B Class C B	Project Specific Remediness:	54.25%
C Class C B	Federal Wage Rate Factor:	0.00%
D Class C B	State & Local Taxes:	6.00%
E Class C B	Historic Preservation Factor:	0.00%
F Class C B A	Design Contingency:	20.00%
G Class C	Standard General Conditions:	24.88%

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 5**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump-Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seih Piszczkowski**
 Estimate Reviewed Date: **2/11/2026**

GOLD
 Cost Schedule

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
H	Class C	5.00%	(Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)											\$12,538.81	
I	Class C.B	1.00%	(Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.											\$2,607.76	
J	Class C.B	1.00%	(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.											\$2,607.76	
Subtotal NET Construction Cost:														\$330,723.60	
K	Class C.B.A	16.00%	(Approximate Range 4% to 18%) Applicable for type and size of construction per previous park projects.											\$52,915.78	
L	Class C.B.A	10.00%	Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.											\$33,072.36	
M	Class C.B.A	2.00%	(Approximate Range 1% to 2.5%) Construction bonding for contractor and subcontractors. The smaller the company the higher the rate.											\$6,614.47	
Estimated NET Construction Cost:														\$423,326.21	
N	Class C.B.A	5.00%	Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.											\$21,166.31	
O	Class C.B.A	5.00%	Aggregate Rate - Use 5% for 2026											10976.7972	
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months):														6	
												Total Estimated NET Cost of Construction:	\$465,469.30		
												Variance Check:	\$465,469.30		
												Total percentage markup	3.0%		
												<i>(Check for formula errors / cell/s RED)</i>			

Estimate Type: **Class C Estimate**

CLIN Number: CLIN 6
Park Acronym: SLBE
CLIN Title: Edwin and Iola Tobin House
PNIS Number: 1BD

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Lump-Sum (LS)
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sliker**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Prazdzkowski**
 Estimate Reviewed Date: **2/11/2026**

[GO TO Cost Schedule](#)

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/Ns numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniformat II WBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost/Unit
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C40	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G100	Site Demolition & Relocations	16	Ea	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Remove Hardwood Floors								
MF-2020 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	4	Load	\$220	\$1,645.00	\$0	\$0	\$1,865.00	\$1,865.00
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$220	\$7,380.00	\$0	\$0	\$7,600.00	\$7,600.00
G100	Site Earthwork	1	Ea	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Mobilization/De-Mobilization	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G10	TOTAL SITE PREPARATION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G20	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$220	\$7,380.00	\$0	\$0	\$7,600.00	\$7,600.00
TAXES				\$0	\$0	\$0	\$0	\$0	\$0
TOTAL NET CONSTRUCTION				\$220	\$7,380.00	\$0	\$0	\$7,600.00	\$7,600.00
Variance Check:				\$339,700	\$130,855.86	\$130,855.86	\$130,855.86	\$130,855.86	\$130,855.86
(Check for formula errors (cell is RED))									

Markups and Factors

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED	MARKUP TYPE
A	Class C/B	5.33%	Park Location Factor (PLF): A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.
B	Class C/B	54.25%	Project Specific Remoteness: Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.
C	Class C/B	0.00%	Federal Wage Rate Factor: Using the attached Wage Rate Calculator, wage rate needs to be adjusted. Applied to 60% of Other Cost.
D	Class C/B	6.00%	State & Local Taxes: Material: 0 Labor: 0 Equipment: 0 Other: x
E	Class C/B	0.00%	Historic Preservation Factor: (Approximate Range 5% to 10%) Based on level of work on historical resources
F	Class C/B/A	20.00%	Design Contingency: This ranges based on ASTM E2516 Expected Accuracy Range/Tolerance for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.
G	Class C	24.88%	Standard General Conditions: (Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.
H	Class C	5.00%	Government General Conditions: (Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)
I	Class C/B	1.00%	Testing & Inspections: (Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.
J	Class C/B	1.00%	Permits & Fees: (Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.
TOTALS			
Subtotal NET Construction Cost:		\$95,016.55	

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 7**
 CLIN Title: **Hutler House**
 Park Acronym: **SJEE**
 PMS Number: **TBD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Lump Sum (LS)
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Slater**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seah Paszczkowski**
 Estimate Reviewed Date: **2/11/2026**

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- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Roundup or Plug numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform I/MS Codes (Work Breakdown Structure), click outline symbol + (plus) to show/expand groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform I/MS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION	
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost/Unit	
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
D10	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
G120	Site Demolition & Relocations	8	Ea	\$0	\$0	\$0	\$0	\$14,000	\$14,000	
MF-2004 Code	Remove Hardwood Trees	2	Unit	\$205.00	\$1,945.00	\$0	\$0	\$2,150.00	\$2,150.00	
MF-2020 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0	
MF-2004 Code	Subtotal	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0	
MF-2004 Code	Site Demolition & Relocations	1	LS	\$410.00	\$3,690.00	\$0	\$0	\$4,100.00	\$4,100.00	
MF-2004 Code	Site Earthwork	1	Ea	\$0	\$0	\$0	\$0	\$2,000.00	\$2,000.00	
MF-2004 Code	Utilization/De-Utilization	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0	
MF-2004 Code	Subtotal	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0	
G10	TOTAL SITE PREPARATION	1	LS	\$410.00	\$3,690.00	\$0	\$0	\$4,100.00	\$4,100.00	
G20	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	
TOTALS				\$410	\$3,690	\$0	\$0	\$4,100	\$4,100	
TAXES				\$0	\$0	\$0	\$0	\$0	\$0	
MARKUP TYPES				\$0	\$0	\$0	\$0	\$0	\$0	
A	Class C B	Park Location Factor (PLF)	5.33%	A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.						\$1,070.50
B	Class C B	Project Specific Remoteness:	54.25%	Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/T transport Costs.						\$10,904.25
C	Class C B	Federal Wage Rate Factor:	0.00%	Using the attached Wage Rate Calculator wage rate needs to be adjusted. Applied to 60% of Other Cost.						\$0.00
D	Class C B	State & Local Taxes:	6.00%	Material: 0 Labor: 0 Equipment: 0 Other: x						\$394.00
E	Class C B	Historic Preservation Factor:	0.00%	(Approximate Range 5% to 10%) Based on level of work on historical resources						\$0.00
F	Class C B A	Design Contingency:	20.00%	This ranges based on ASTM E2516 Expected Accuracy Range/Tolerance for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.						\$4,020.00
G	Class C	Standard General Conditions:	24.88%	(Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.						\$36,475.81
H	Class C	Government General Conditions:	5.00%	(Approximate Range 5% to 10%) Government requirements including quality assurance and safety requirements. (See Division 1 Specifications for guidance.)						\$9,075.93
I	Class C B	Testing & Inspections:	1.00%	(Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.						\$364.79
J	Class C B	Permits & Fees:	1.00%	(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.						\$364.79
Subtotal NET Construction Cost:				\$48,108.25						

TOTAL NET CONSTRUCTION
 \$20,400
 Variance Check: \$66,254.21
 (Check for formula errors if cell is RED)

MARKUPS and Factors

MARKUP ALLOWED	MARKUP TYPES	DESCRIPTION
A	Class C B	Park Location Factor (PLF)
B	Class C B	Project Specific Remoteness:
C	Class C B	Federal Wage Rate Factor:
D	Class C B	State & Local Taxes:
E	Class C B	Historic Preservation Factor:
F	Class C B A	Design Contingency:
G	Class C	Standard General Conditions:
H	Class C	Government General Conditions:
I	Class C B	Testing & Inspections:
J	Class C B	Permits & Fees:

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 7**
 CLIN Title: **Hutzel House**
 Park Acronym: **SJEE**
 PMS Number: **TBD**

Overall Period of Performance: **9**
 Individual CLM Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Slater**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Paszczkowski**
 Estimate Reviewed Date: **2/11/2026**

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- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or Plus numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform / MBS Codes (Work Breakdown Structure), click outline symbol * (plus) to show/expand groups required for the ICE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform/MBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
K	Class C-E-A Home Office Overhead:	16.00%	(Approximate Range 4% to 18%)	Applicable for type and size of construction per previous park projects.											\$7,697.32
L	Class C-E-A Profit:	10.00%	Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.												\$4810.82
M	Class C-E-A Performance Bond:	2.00%	(Approximate Range 1% to 2.5%)	Construction bonding for contractor and subcontractors. The smaller the company the higher the rate.											\$962.16
N	Class C-E-A Contracting Method Adjustment:	5.00%	Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.												\$61,676.56
O	Class C-E-A Inflation Escalation Annual Rate:	5.00%	Aggregate Rate - Use 5% for 2026												\$3,076.93
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months):															
6															
Total Estimated NET Cost of Construction:															
\$66,254.21															
Variance Check:															
330%															
(Check for formula errors / cell is RED)															

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 8**
 CLIN Title: **Robinate House**
 Park Acronym: **SJEE**
 PMS Number: **TBD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Lump Sum (LS)
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Slater**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seah Paszczkowski**
 Estimate Reviewed Date: **2/11/2026**

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- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or Plus numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform I/MS Codes (Work Breakdown Structure), click outline symbol *(plus) to show/expand groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform I/MS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost/Unit
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D10	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G120	Site Demolition & Relocations	3	Ea	\$0	\$0	\$0	\$5,250	1,750.00	\$5,250
MF-2004 Code	Remove Hardwood Trees								
MF-2020 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	1	Unit	\$1,620	\$1,620	\$0	\$0	1,620.00	\$1,620
MF-2004 Code	Subtotal	0		\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Site Demolition & Relocations	1	LS	\$160	\$1,620	\$0	\$5,250	7,060.00	\$7,060
MF-2004 Code	Site Earthwork	1	Ea	\$0	\$0	\$0	\$1,000	1,000.00	\$1,000
MF-2004 Code	Site Earthwork	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Site Earthwork	1	LS	\$1,620	\$1,620	\$0	\$1,000	4,000.00	\$4,000
MF-2004 Code	Site Earthwork	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
G10	TOTAL SITE PREPARATION	1	LS	\$160	\$1,620	\$0	\$1,000	6,080.00	\$8,160
G20	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$160	\$1,620	\$0	\$6,250	\$8,030	\$8,030
TAXES				\$0	\$0	\$0	\$150	\$150	\$150
TOTAL NET CONSTRUCTION				\$160	\$1,620	\$0	\$6,400	\$8,180	\$8,180
Variance Check:				\$8,060	\$6,527.77	\$0	\$8,527.77	\$8,527.77	\$8,527.77
				<i>(Check for formula errors if cell is RED)</i>					

Markups and Factors

MARKUP TYPES	MARKUP TYPES	MARKUP TYPES
MARKUP ALLOWED	MARKUP TYPES	TOTALS
A Class C B	Park Location Factor (PLF): 5.33%	\$428.75
B Class C B	Project Specific Remediness: 54.25%	\$4,387.13
C Class C B	Federal Wage Rate Factor: 0.00%	\$0.00
D Class C B	State & Local Taxes: 6.00%	\$150.00
E Class C B	Historic Preservation Factor: 0.00%	\$0.00
F Class C B A	Design Contingency: 20.00%	\$1,610.00
G Class C	Standard General Conditions: 24.88%	\$14,605.88
H Class C	Government General Conditions: 5.00%	\$3,635.94
I Class C B	Testing & Inspections: 1.00%	\$70.29
J Class C B	Permits & Fees: 1.00%	\$146.00
Subtotal NET Construction Cost:		\$19,282.23

MARKUP PERCENTAGES will initially be populated from the **Markups** worksheets but can be overwritten as the design is developed or for changing requirements of the individual CLIN.

A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.

Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/T transport Costs.

Using the attached Wage Rate Calculator wage rate needs to be adjusted. Applied to 60% of Other Cost.

(Approximate Range 5% to 10%) Based on level of work on historical resources

This ranges based on ASTM E2516 Expected Accuracy Range/Tolerance for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.

(Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.

(Approximate Range 5% to 10%) Government requirements including quality assurance and safety requirements. (See Division 1 Specifications for guidance.)

(Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.

(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 8**
 CLIN Title: **Robinnite House**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump-Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

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- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (plus) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
K	Class C.B.A Home Office Overhead:	16.00%		(Approximate Range: 4% to 18%) Applicable for type and size of construction per previous park projects.											\$3,081,866
L	Class C.B.A Profit:	10.00%		Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.											\$1,926,222
M	Class C.B.A Performance Bond:	2.00%		(Approximate Range: 1% to 2.5%) Construction bonding for contractor and subcontractors. The smaller the company the higher the rate.											\$385,24
															\$24,655,66
N	Class C.B.A Contracting Method Adjustment:	5.00%		Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.											\$1,232,78
O	Class C.B.A Inflation Escalation Annual Rate:	5.00%		Aggregate Rate - Use 5% for 2026											639,317,0932
				Include construction start / finish dates with duration of work in months.											
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months): 6															
														Total Estimated NET Cost of Construction:	\$26,627,77
														Variance Check:	330%
														<i>(Check for formula errors / cell/s RED)</i>	

Estimate Type: **Class C Estimate**

CLIN Number: CLIN 9	Overall Quantity: 1
CLIN Title: Root Collar	Lump-Sum (LS)
Park Acronym: SLBE	Asset Code: 4100 Building
PMS Number: 1BD	Facility Type: 4110 Office

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Estimator Name: **Todd Sliker**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[GO TO Cost Schedule](#)

- No Abbreviations or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost/Unit
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C40	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G100	Site Demolition & Relocations	2	Ea	\$0	\$0	\$0	\$2,500.00	\$2,500.00	\$2,500.00
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Limbing								
MF-2020 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center			\$140.00	\$1,260.00	\$0	\$0	\$1,400.00	\$1,400.00
MF-2004 Code	Description	0	UNIT	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$140	\$1,260	\$0	\$2,500	\$3,900	\$3,900
G100	Site Earthwork	1	Ea	\$0	\$0	\$0	\$500.00	\$500.00	\$500.00
MF-2004 Code	Site Preparation/De-Mobilization	0	UNIT	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	UNIT	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0	\$0	\$0	\$500	\$500	\$500
G10	TOTAL SITE PREPARATION	1	LS	\$0	\$0	\$0	\$500.00	\$500.00	\$500.00
G20	TOTAL SITE IMPROVEMENTS	1	LS	\$140.00	\$1,260.00	\$0	\$3,000.00	\$4,400.00	\$4,400.00
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$140	\$1,260	\$0	\$3,000	\$4,400	\$4,400
TAXES				\$0	\$0	\$0	\$72	\$72	\$72
TOTAL NET CONSTRUCTION				\$140	\$1,260	\$0	\$3,072	\$4,472	\$4,472
Variance Check:				\$4,400	\$4,472	\$0	\$72	\$72	\$72
(Check for formula errors (cell is RED))									

Markups and Factors

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED
A	Class C B	5.33%
B	Class C B	5.33%
C	Class C B	0.00%
D	Class C B	6.00%
E	Class C B	0.00%
F	Class C B/A	20.00%
G	Class C	24.88%
H	Class C	5.00%
I	Class C B	1.00%
J	Class C B	1.00%

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED
A	Park Location Factor (PLF):	5.33%
B	Project Specific Remediation:	54.25%
C	Federal Wage Rate Factor:	0.00%
D	State & Local Taxes:	6.00%
E	Historic Preservation Factor:	0.00%
F	Design Contingency:	20.00%
G	Standard General Conditions:	24.88%
H	Government General Conditions:	5.00%
I	Testing & Inspections:	1.00%
J	Permits & Fees:	1.00%

MARKUP TYPES	DESCRIPTION	TOTALS
A	A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.	\$234.35
B	Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.	\$2,387.00
C	Using the attached Wage Rate Calculator wage rate needs to be adjusted. Applied to 60% of Other Cost.	\$0.00
D	Material: 0 Labor: 0 Equipment: 0 Other: x	\$72.00
E	(Approximate Range 5% to 10%) Based on level of work on historical resources	\$0.00
F	This ranges based on ASTM E2516 Expected Accuracy Ranges for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.	\$800.00
G	(Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.	\$7,973.35
H	(Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)	\$1,983.77
I	(Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.	\$388.07
J	(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.	\$79.73
Subtotal NET Construction Cost:		\$10,515.25

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 9**
 CLIN Title: **Root Collar**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump-Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[GOLLO Cost Schedule](#)

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (plus) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION		
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost	
K	Class C.B.A Home Office Overhead:	16.00%												\$1,682,441		
L	Class C.B.A Profit:	10.00%												\$1,051,553		
M	Class C.B.A Performance Bond:	2.00%												\$210,311		
Estimated NET Construction Cost:																
														\$13,469,553		
N	Class C.B.A Contracting Method Adjustment:	5.00%												\$672,988		
O	Class C.B.A Inflation Escalation Annual Rate:	5.00%												345,003,249		
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months): 6																
													Total Estimated NET Cost of Construction:	\$14,481,511	Total percentage markup	323%
													Variance Check:			

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Estimate Type: **Class C Estimate**

CLIN Number: CLIN 10	Overall Quantity: 1
CLIN Title: Johnson-Katherine House	Lump-Sum (LS)
Park Acronym: SLBE	Unit of Measure: 4100 Building
PMS Number: TBD	Facility Type: 4110 Office

Overall Period of Performance: 9	Estimator Name: Todd Slier
Individual CLIN Period of Performance (as needed):	Current Estimate Date: 2/11/2026
	Asset Code: 4100 Building
	Estimate Reviewed By: Seth Pyszczkowski
	Estimate Reviewed Date: 2/11/2026

GOLO
Cost Schedule

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniformat II WBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniformat II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost/Unit
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C40	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G100	Site Demolition & Relocations	7	Ea	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Limbing	2	Unit	\$170.00	\$3,000.00	\$0	\$0	\$3,170.00	\$3,170.00
MF-2004 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Subtotal	1	LS	\$340.00	\$3,060.00	\$0	\$0	\$3,400.00	\$3,400.00
G100	Site Demolition & Relocations	1	Ea	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Site Demolition/De-Mobilization	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Subtotal	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G10	TOTAL SITE PREPARATION	1	LS	\$400.00	\$0.00	\$0	\$0	\$400.00	\$400.00
G20	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
				DIRECT COSTS	\$340	\$0	\$0	\$340	\$340
				TAXES	\$0	\$0	\$0	\$0	\$0
				Total Direct Construction:	\$13,650	\$0	\$246	\$13,896	\$13,896
				Total Direct Construction:	\$13,650	\$0	\$246	\$13,896	\$13,896
				Total Net Construction:	\$44,966.70	\$0	\$0	\$44,966.70	\$44,967
				Variance Check:	\$44,966.70	\$44,966.70	\$0	\$0	\$0
				(Check for formula errors (cell is RED))					

Markups and Factors

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED
A	Class C B	5.33%
B	Class C B	5.25%
C	Class C B	0.00%
D	Class C B	6.00%
E	Class C B	0.00%
F	Class C B/A	20.00%
G	Class C	24.88%
H	Class C	5.00%
I	Class C B	1.00%
J	Class C B	1.00%

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED
A	Park Location Factor (PLF):	5.33%
B	Project Specific Remedies:	5.25%
C	Federal Wage Rate Factor:	0.00%
D	State & Local Taxes:	6.00%
E	Historic Preservation Factor:	0.00%
F	Design Contingency:	20.00%
G	Standard General Conditions:	24.88%
H	Government General Conditions:	5.00%
I	Testing & Inspections:	1.00%
J	Permits & Fees:	1.00%

MARKUP TYPES	DESCRIPTION	TOTALS
A	A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.	\$727.02
B	Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.	\$7,405.13
C	Using the attached Wage Rate Calculator wage rate needs to be adjusted. Applied to 60% of Other Cost.	\$0.00
D	(Approximate Range 5% to 10%) Based on level of work on historical resources	\$246.00
E	This ranges based on ASTM E2516 Expected Accuracy Range/Tolerance for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.	\$0.00
F	(Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.	\$2,730.00
G	(Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)	\$24,768.14
H	(Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.	\$6,195.63
I	(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.	\$1,231.91
J	(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.	\$247.58
Subtotal NET Construction Cost:		\$52,651.04

Estimate Type: **Class C Estimate**

CLIN Number: **CLM 10**
 CLIN Title: **Johnson-Kalderhouse House**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump-Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[Go to Cost Schedule](#)

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (plus) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
K	Class C.B.A Home Office Overhead:	16.00%		(Approximate Range: 4% to 18%) Applicable for type and size of construction per previous park projects.											
L	Class C.B.A Profit:	10.00%		Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.											
M	Class C.B.A Performance Bond:	2.00%		(Approximate Range: 1% to 2.5%) Construction bonding for contractor and subcontractors. The smaller the company the higher the rate.											
N	Class C.B.A Contracting Method Adjustment:	5.00%		Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.											
O	Class C.B.A Inflation Escalation Annual Rate:	5.00%		Aggregate Rate - Use 5% for 2026											
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months):															
														6	
														Estimated NET Construction Cost:	
														\$41,793.33	
														1083.894008	
														\$2,089.67	
														\$8,224.17	
														\$3,265.10	
														\$653.02	
														\$44,966.70	
														\$44,966.70	
														323%	
														Total Estimated NET Cost of Construction:	
														Variance Check:	

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Estimate Type: **Class C Estimate**

CLIN Number: CLIN 11	Overall Quantity: 1	Estimator Name: Todd Sliker
CLIN Title: Theodore and Matilda Thompson House	Lump-Sum (LS)	Current Estimate Date: 2/11/2026
Park Acronym: SLBE	Asset Code: 4100 Building	Estimate Reviewed By: Seth Pzaczkowski
PMS Number: TBD	Facility Type: 4110 Office	Estimate Reviewed Date: 2/11/2026

Overall Period of Performance: 9	Unit of Measure: Lump-Sum (LS)
Individual CLIN Period of Performance (as needed):	Asset Code: 4100 Building
	Facility Type: 4110 Office

Overall Quantity: 1	Estimator Name: Todd Sliker
Lump-Sum (LS)	Current Estimate Date: 2/11/2026
Asset Code: 4100 Building	Estimate Reviewed By: Seth Pzaczkowski
Facility Type: 4110 Office	Estimate Reviewed Date: 2/11/2026

Overall Quantity: 1	Estimator Name: Todd Sliker
Lump-Sum (LS)	Current Estimate Date: 2/11/2026
Asset Code: 4100 Building	Estimate Reviewed By: Seth Pzaczkowski
Facility Type: 4110 Office	Estimate Reviewed Date: 2/11/2026

GOLO
Cost Schedule

- No Abbreviations or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform IIWBS Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost/Unit
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C40	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G100	Site Demolition & Relocations	12	Ea	\$0	\$0	\$0	\$15,000	\$15,000	\$15,000
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Limbing	2	Load	\$215.00	\$1,935.00	\$0	\$0	\$2,150.00	\$4,300
MF-2004 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$430.00	\$3,870.00	\$0	\$15,000.00	\$19,300.00	\$19,300
G100	Site Earthwork	1	Ea	\$0	\$0	\$0	\$2,000.00	\$2,000	\$2,000
MF-2004 Code	Reorganization/De-Mobilization	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0	\$0	\$0	\$2,000.00	\$2,000	\$2,000
G10	TOTAL SITE PREPARATION	1	LS	\$430.00	\$3,870.00	\$0	\$17,000.00	\$21,300.00	\$21,300
G20	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$430	\$3,870	\$0	\$17,000	\$21,300	\$21,300
TAXES				\$0	\$0	\$0	\$408	\$408	\$408
TOTAL NET CONSTRUCTION				\$430	\$3,870	\$0	\$17,408	\$21,708	\$21,708
Variance Check:				\$0	\$0	\$0	\$0	\$0	\$0
Total Direct Construction:				\$21,300	\$193,000	\$0	\$70,211.64	\$211,641.64	\$211,641.64
Total Direct Construction:				\$21,300	\$193,000	\$0	\$70,211.64	\$211,641.64	\$211,641.64

- MARKUP PERCENTAGES will initially be populated from the Markups worksheets but can be overwritten as the design is developed or for changing requirements of the individual CLIN.

Markups and Factors

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED
A	Class C/B	5.33%
B	Class C/B	5.25%
C	Class C/B	0.00%
D	Class C/B	6.00%
E	Class C/B	0.00%
F	Class C/B/A	20.00%
G	Class C	24.88%
H	Class C	5.00%
I	Class C/B	1.00%
J	Class C/B	1.00%

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED
A	Park Location Factor (PLF):	5.33%
B	Project Specific Remedies:	5.25%
C	Federal Wage Rate Factor:	0.00%
D	State & Local Taxes:	6.00%
E	Historic Preservation Factor:	0.00%
F	Design Contingency:	20.00%
G	Standard General Conditions:	24.88%
H	Government General Conditions:	5.00%
I	Testing & Inspections:	1.00%
J	Permits & Fees:	1.00%

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED
A	A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.	\$1,134.47
B	Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.	\$11,655.25
C	Using the attached Wage Rate Calculator wage rate needs to be adjusted. Applied to 60% of Other Cost.	\$0.00
D	(Approximate Range 5% to 10%) Based on level of work on historical resources	\$408.00
E	This ranges based on ASTM E2516 Expected Accuracy Ranges for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.	\$0.00
F	(Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.	\$4,280.00
G	(Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)	\$38,657.72
H	(Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.	\$6,618.04
I	(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.	\$1,032.89
J	(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.	\$386.58
Subtotal NET Construction Cost:		\$50,881.80

Estimate Type: **Class C Estimate**

CLIN Number: **CLM 12**
 CLIN Title: **Keeler House**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump-Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

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- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or P/M numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform II WBS Codes (Work Breakdown Structure), click outline symbol + (plus) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
K	Class C.B.A Home Office Overhead:	16.00%		(Approximate Range: 4% to 18%) Applicable for type and size of construction per previous park projects.											\$3,541.73
L	Class C.B.A Profit:	10.00%		Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.											\$2,113.66
M	Class C.B.A Performance Bond:	2.00%		(Approximate Range: 1% to 2.5%) Construction bonding for contractor and subcontractors. The smaller the company the higher the rate.											\$442.72
Estimated NET Construction Cost:															
N	Class C.B.A Contracting Method Adjustment:	5.00%		Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.											\$1,416.69
O	Class C.B.A Inflation Escalation Annual Rate:	5.00%		Aggregate Rate - Use 5% for 2026											734.6907526
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months): 6															
														Total Estimated NET Cost of Construction:	\$30,485.19
														Variance Check:	330%

(Check for formula errors / cell/s RED)

Estimate Type: **Class C Estimate**

CLIN Number: CLIN 13	Overall Quantity: 1
CLIN Title: Walters House	Lump Sum (LS)
Park Acronym: SLBE	Asset Code: 4100 Building
PMS Number: TBD	Facility Type: 4110 Office

Overall Period of Performance: 9
 Individual CLIN Period of Performance (as needed):

Estimator Name: Todd Sleser
 Current Estimate Date: 2/11/2026
 Estimate Reviewed By: Seth Pyszczkowski
 Estimate Reviewed Date: 2/11/2026

[GO TO Cost Schedule](#)

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Uniform II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost/Unit
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C40	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G100	Site Demolition & Relocations	11	Ea	\$0	\$0	\$0	\$1,250.00	\$13,750.00	\$13,750.00
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Limbing	2	Load	\$205.00	\$1,845.00	\$0	\$0	\$2,050.00	\$4,100.00
MF-2004 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$410.00	\$3,690.00	\$0	\$13,750.00	\$17,850.00	\$17,850.00
G100	Site Earthwork	1	Ea	\$0	\$0	\$0	\$2,000.00	\$2,000.00	\$2,000.00
MF-2004 Code	Reorganization/De-Mobilization	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0	\$0	\$0	\$2,000.00	\$2,000.00	\$2,000.00
G20	TOTAL SITE PREPARATION	1	LS	\$410.00	\$3,690.00	\$0	\$15,750.00	\$19,850.00	\$19,850.00
G30	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G80	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$410	\$3,690	\$0	\$13,750	\$18,850	\$18,850
TAXES				\$0	\$0	\$0	\$78	\$78	\$78
TOTAL NET CONSTRUCTION								\$19,850	\$19,850
Variance Check:								\$65,427.93	\$65,427.93
								\$65,427.93	\$65,427.93

MARKUP PRECENTAGES will initially be populated from the **Markups** worksheets but can be overwritten as the design is developed or for changing requirements of the individual CLIN.
 (Check for formula errors (cell is RED))

Markups and Factors

MARKUP TYPES	DESCRIPTION	MARKUP ALLOWED
A	Class C B	Park Location Factor (PLF): 5.33%
B	Class C B	Project Specific Remediation: 54.25%
C	Class C B	Federal Wage Rate Factor: 0.00%
D	Class C B	State & Local Taxes: 6.00%
E	Class C B	Historic Preservation Factor: 0.00%
F	Class C B/A	Design Contingency: 20.00%
G	Class C	Standard General Conditions: 24.88%
H	Class C	Government General Conditions: 5.00%
I	Class C B	Testing & Inspections: 1.00%
J	Class C B	Permits & Fees: 1.00%

MARKUP TYPES	DESCRIPTION	TOTALS
A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.		\$1,057.24
Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.		\$10,788.63
Using the attached Wage Rate Calculator, wage rate needs to be adjusted. Applied to 60% of Other Cost.		\$0.00
Material: 0 Labor: 0 Equipment: 0 Other: x		\$378.00
(Approximate Range 5% to 10%) Based on level of work on historical resources		\$0.00
This ranges based on ASTM E2516 Expected Accuracy Ranges for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.		\$3,970.00
Total Direct Construction Costs:		\$36,023.87
(Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.		\$8,962.74
(Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)		\$1,001.19
(Approximate Range 1% to 3%) Soil, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.		\$360.24
(Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.		\$47,508.27
Subtotal NET Construction Cost:		\$47,508.27

Estimate Type: **Class C Estimate**

CLIN Number: **CLIN 13**
 CLIN Title: **Walters House**
 Park Acronym: **SLBE**
 PMS Number: **1BD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump-Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seth Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[GOTO Cost Schedule](#)

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Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION			
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost		
K	Class C.B.A Home Office Overhead:	16.00%		(Approximate Range: 4% to 18%) Applicable for type and size of construction per previous park projects.										\$7,601.32			
L	Class C.B.A Profit:	10.00%		Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.										\$4,750.63			
M	Class C.B.A Performance Bond:	2.00%		(Approximate Range: 1% to 2.5%) Construction bonding for contractor and subcontractors. The smaller the company the higher the rate.										\$950.17			
Estimated NET Construction Cost:																	
N	Class C.B.A Contracting Method Adjustment:	5.00%		Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.										\$3,040.53			
O	Class C.B.A Inflation Escalation Annual Rate:	5.00%		Aggregate Rate - Use 5% for 2026										1576.808291			
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months): 6																	
														Total Estimated NET Cost of Construction:	\$65,427.93	Total percentage markup	30%
														Variance Check:	\$8,847.93	<i>(Check for formula errors / cell/s RED)</i>	

Estimate Type: **Class C Estimate**

CLIN Number: CLIN 14	Overall Period of Performance: 9
CLIN Title: Vault Toilets	Individual CLIN Period of Performance (as needed):
Park Acronym: SLBE	
PMS Number: TBD	

Estimator Name: Todd Sliser
Current Estimate Date: 2/11/2026
Asset Code: 4100 Building
Estimate Reviewed By: Seth Pyszczkowski
Estimate Reviewed Date: 2/11/2026

Overall Quantity: 1
Lump-Sum (LS)
Facility Type: 4110 Office

GOLO
Cost Schedule

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Uniform II WBS Code	Description	Quantity	Unit	MATERIAL	LABOR	EQUIPMENT	OTHER	DIRECT CONSTRUCTION	NET CONSTRUCTION
				Material Cost/Unit	Labor Cost/Unit	Equipment Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Cost
A10	TOTAL FOUNDATIONS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
A20	TOTAL BASEMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
B30	TOTAL ROOFING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C20	TOTAL STAIRS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
C40	TOTAL CONVEYING SYSTEMS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D20	TOTAL PLUMBING	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
D50	TOTAL ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E10	TOTAL EQUIPMENT	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
E20	TOTAL FURNISHINGS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
F20	TOTAL SELECTIVE DEMOLITION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G10	Site Demolition & Relocations	11	Eia	\$0	\$0	\$0	\$13,750	\$13,750	\$13,750
MF-2004 Code	Remove Hardwood Trees - Tree Thinning/Limbing	2	Load	\$410	\$1,845.00	\$0	\$0	\$2,255.00	\$4,100
MF-2004 Code	Haul & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$410	\$3,690.00	\$0	\$13,750.00	\$17,850.00	\$17,850.00
G10	Site Earthwork	1	Sum	\$0	\$0	\$0	\$2,500.00	\$2,500.00	\$2,500.00
MF-2004 Code	ESC - Allowance	1	Sum	\$0	\$0	\$0	\$2,500.00	\$2,500.00	\$2,500.00
MF-2004 Code	Rehabilitation/Re-Mobilization	1000	LS	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Clear & Grubbing	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Site Earthwork	1	LS	\$0	\$0	\$0	\$2,500.00	\$2,500.00	\$2,500.00
G10	TOTAL SITE PREPARATION	1	LS	\$410	\$3,690.00	\$0	\$16,250.00	\$19,150.00	\$19,150.00
G20	Pedestrian Paving	120	Sf	\$0	\$0	\$0	\$11.34	\$11.34	\$11.34
MF-2004 Code	Asphalt Paving	200	Sf	\$0	\$0	\$0	\$110.50	\$22,100.00	\$22,100.00
MF-2004 Code	Wood Ramp - ADA - 5' Wide	80	Lf	\$0	\$0	\$0	\$225.00	\$18,000.00	\$18,000.00
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
MF-2004 Code	Description	0	Unit	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	Pedestrian Paving	1	LS	\$0	\$0	\$0	\$41,664.44	\$41,664.44	\$41,664.44
G20	TOTAL SITE IMPROVEMENTS	1	LS	\$0	\$0	\$0	\$41,664.44	\$41,664.44	\$41,664.44
G30	TOTAL SITE MECHANICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
G80	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$410	\$3,690.00	\$0	\$64,364.44	\$68,464.44	\$68,464.44
TAXES				\$0	\$0	\$0	\$1,545.00	\$1,545.00	\$1,545.00
TOTAL NET CONSTRUCTION							\$69,167.78	\$69,167.78	\$69,167.78

MARKUP TYPES	MARKUP TYPES	DESCRIPTION
A	Class C B	Park Location Factor (PLF): 5.33%
B	Class C B	Project Specific Remoteness: 54.25%
C	Class C B	Federal Wage Rate Factor: 0.00%
D	Class C B	State & Local Taxes: 6.00%
E	Class C B	Historic Preservation Factor: 0.00%
F	Class C B/A	Design Contingency: 20.00%
G	Class C	Standard General Conditions: 24.88%

A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.
 Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barge/Transport Costs.
 Using the attached Wage Rate Calculator, wage rate needs to be adjusted. Applied to 60% of Other Cost.
 (Approximate Range 5% to 10%) Based on level of work on historical reocurs
 This ranges based on ASTM E2516 Expected Accuracy Range/Tolerance for design contingency and estimators best professional judgment based on phase of design, complexity, and size of project.
 (Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.

TOTALS	\$3,646.52
	\$37,141.96
	\$0.00
	\$1,544.75
	\$0.00
	\$13,032.89
Total Direct Construction Costs:	\$124,480.56
	\$30,073.25

Total Direct Construction: \$69,167.78
Total Net Construction: \$69,167.78
Variance Check: \$226,104.54
 (Check for formula errors if cell is RED)

Estimate Type: **Class C Estimate**

CLIN Number: **CLM 14**
 Park Acronym: **SLBE**
 PMS Number: **TBD**

Overall Period of Performance: **9**
 Individual CLIN Period of Performance (as needed):

Overall Quantity: **1**
 Unit of Measure: **Lump-Sum (LS)**
 Asset Code: **4100 Building**
 Facility Type: **4110 Office**

Estimator Name: **Todd Sleser**
 Current Estimate Date: **2/11/2026**
 Estimate Reviewed By: **Seih Pyszczkowski**
 Estimate Reviewed Date: **2/11/2026**

[GOLO Cost Schedule](#)

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Uniform I/IBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
H	Class C Government General Conditions:	5.00%	(Approximate Range 5% to 10%)												
I	Class C/B Testing & Inspections:	1.00%	(Approximate Range 1% to 3%)												
J	Class C/B Permits & Fees:	1.00%	(Approximate Range 0% to 2%)												
K	Class C/B/A Home Office Overhead:	16.00%	(Approximate Range 4% to 18%)												
L	Class C/B/A Profit:	10.00%	Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.												
M	Class C/B/A Performance Bond:	2.00%	(Approximate Range 1% to 2.5%)												
N	Class C/B/A Contracting Method Adjustment:	5.00%	Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.												
O	Class C/B/A Inflation Escalation Annual Rate:	5.00%	Aggregate Rate - Use 5% for 2026												
CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months): 6															
												Total Estimated NET Cost of Construction:		\$226,104.54	
												Variance Check:		\$226,104.54	
												Total percentage markup		3.0%	
												(Check for formula errors / cell/s RED)			

Estimate Type: **Class C Estimate**

CLIN Number: CLM 15	Overall Quantity: 1	Estimator Name: Todd Sleser
CLIN Title: SMI Life-Saving House	Unit of Measure: Lump-Sum (LS)	Current Estimate Date: 2/11/2026
Park Acronym: SLBE	Asset Code: 4100 Building	Estimate Reviewed By: Seth Pyszczkowski
PMS Number: TBD	Facility Type: 4110 Office	Estimate Reviewed Date: 2/11/2026

Overall Period of Performance: 9
 Individual CLIN Period of Performance (as needed):

Overall Quantity: 1
 Unit of Measure: Lump-Sum (LS)
 Asset Code: 4100 Building
 Facility Type: 4110 Office

GOLO
 Cost Schedule

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• Rounding or Pkg numbers are not acceptable. Estimate will be rejected if used.

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Uniform II WBS Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
A10	Standard Foundations														
MF-2004 Code	Buildings and Structures	1	Sum	\$	\$0	\$	\$0	\$	\$0	\$	\$20,000.00	\$	\$20,000.00	\$	\$20,000.00
MF-2004 Code	Preserve/Lookout Tower Foundation	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
MF-2004 Code	Description	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
Subtotal	Standard Foundations	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$20,000.00	\$	\$20,000.00	\$	\$20,000.00
A10	TOTAL FOUNDATIONS														
A20	TOTAL BASEMENT	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
B10	TOTAL SUPERSTRUCTURE	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
E20	TOTAL EXTERIOR ENCLOSURE	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
E30	TOTAL ROOFING	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
C10	TOTAL INTERIOR CONSTRUCTION	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
C20	TOTAL STAIRS	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
C30	TOTAL INTERIOR FINISHES	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
D10	TOTAL CONVEYING SYSTEMS	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
D20	TOTAL PLUMBING	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
D30	TOTAL HVAC (Heating, Ventilation, and Air Conditioning)	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
D40	TOTAL FIRE PROTECTION	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
B50	TOTAL ELECTRICAL	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
E10	TOTAL EQUIPMENT	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
E20	TOTAL FURNISHINGS	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
F10	TOTAL SPECIAL CONSTRUCTION	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
F20	TOTAL SELECTIVE DEMOLITION														
G10	Site Demolition & Relocations														
MF-2004 Code	Circulation Improvements	5000	SF	\$	\$0	\$	\$0	\$	\$0	\$	\$2,500	\$	\$2,500.00	\$	\$2,500.00
MF-2004 Code	Preserve/Concrete Yards - Clear Path	2	Load	\$	\$185.00	\$	\$1,755.00	\$	\$3,930.00	\$	\$1,960.00	\$	\$1,960.00	\$	\$3,930.00
MF-2004 Code	Reid & Dispose - Load & Haul to Nearest Commercial Center	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
MF-2004 Code	Description	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
Subtotal	Site Demolition & Relocations	1	LS	\$	\$390	\$	\$3,930.00	\$	\$3,930.00	\$	\$12,500.00	\$	\$16,400.00	\$	\$16,400.00
G1030	Site Work														
MF-2004 Code	ES&C - Network	1	Sum	\$	\$0	\$	\$0	\$	\$0	\$	\$2,500.00	\$	\$2,500.00	\$	\$2,500.00
MF-2004 Code	Mobilization/De-Mobilization	1	Est	\$	\$0	\$	\$0	\$	\$0	\$	\$44,000.00	\$	\$44,000.00	\$	\$44,000.00
MF-2004 Code	Circulation Improvements	2400	SF	\$	\$0	\$	\$0	\$	\$0	\$	\$1,560	\$	\$1,560	\$	\$1,560
MF-2004 Code	Clear & Grub/Grading	1	Sum	\$	\$0	\$	\$0	\$	\$0	\$	\$5,000.00	\$	\$5,000.00	\$	\$5,000.00
MF-2004 Code	Topographic Survey - Allowance	6	Est	\$	\$0	\$	\$0	\$	\$0	\$	\$1,000.00	\$	\$1,000.00	\$	\$1,000.00
MF-2004 Code	Buildings and Structures	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
MF-2004 Code	Grading - Establish Positive Drainage From Building	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$59,060.00	\$	\$59,060.00	\$	\$59,060.00
MF-2004 Code	Description	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
Subtotal	Site Earthwork	1	LS	\$	\$890	\$	\$3,930.00	\$	\$3,930.00	\$	\$71,560.00	\$	\$75,490.00	\$	\$75,490.00
G10	TOTAL SITE PREPARATION														
G200	Pedestrian Paving														
MF-2004 Code	Circulation Improvements	5000	SF	\$	\$0	\$	\$0	\$	\$0	\$	\$7.63	\$	\$38,125	\$	\$38,125
MF-2004 Code	Repair Concrete Walks - 25%	1200	SF	\$	\$0	\$	\$0	\$	\$0	\$	\$11.34	\$	\$13,611	\$	\$13,611
MF-2004 Code	Concrete Paving	1200	SF	\$	\$0	\$	\$0	\$	\$0	\$	\$110.52	\$	\$132,620	\$	\$132,620
MF-2004 Code	Wood Ramp - ADA - 6' Wide	480	LF	\$	\$0	\$	\$0	\$	\$0	\$	\$225.00	\$	\$108,000	\$	\$108,000
MF-2004 Code	Handrails	1540	SF	\$	\$0	\$	\$0	\$	\$0	\$	\$89.44	\$	\$137,738	\$	\$137,738
MF-2004 Code	Bandwalk - 4' Wide	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
MF-2004 Code	Description	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
Subtotal	Pedestrian Paving	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$430,095.11	\$	\$430,095.11	\$	\$430,095.11
G2000	Landscaping														
MF-2004 Code	Vegetation	8	Est	\$	\$0	\$	\$0	\$	\$0	\$	\$2,000.00	\$	\$2,000.00	\$	\$2,000.00
MF-2004 Code	Trees - 2.5' Cal.	240	SF	\$	\$0	\$	\$0	\$	\$0	\$	\$6.50	\$	\$1,560	\$	\$1,560
MF-2004 Code	Preserve/Maintain Vegetable Garden	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
MF-2004 Code	Description	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
Subtotal	Landscaping	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$17,560.00	\$	\$17,560.00	\$	\$17,560.00
G2060	Site Furnishings														
MF-2004 Code	Buildings and Structures	5	Est	\$	\$0	\$	\$0	\$	\$0	\$	\$975.00	\$	\$4,875	\$	\$4,875
MF-2004 Code	Interpretive Panels	500	LF	\$	\$0	\$	\$0	\$	\$0	\$	\$15.00	\$	\$7,500	\$	\$7,500
MF-2004 Code	Small Scale Features	1	Sum	\$	\$0	\$	\$0	\$	\$0	\$	\$4,500.00	\$	\$4,500.00	\$	\$4,500.00
MF-2004 Code	Preserve/Repair Fence	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
MF-2004 Code	Reestablish Ornamental Archway	1	Sum	\$	\$0	\$	\$0	\$	\$0	\$	\$1,300.00	\$	\$1,300.00	\$	\$1,300.00
MF-2004 Code	Preserve/Repair Lookout Tower Abutments - Apply Sealer	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
MF-2004 Code	Description	0	Unit	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0	\$	\$0
Subtotal	Site Furnishings	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$18,175.00	\$	\$18,175.00	\$	\$18,175.00
G30	TOTAL SITE IMPROVEMENTS														
MF-2004 Code	TOTAL SITE MECHANICAL	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$485,830.11	\$	\$485,830.11	\$	\$485,830.11
Subtotal	TOTAL SITE IMPROVEMENTS	1	LS	\$	\$0	\$	\$0	\$	\$0	\$	\$1,539,483.66	\$	\$1,539,483.66	\$	\$1,539,483.66

Estimate Type: **Class C Estimate**

CLIN Number: CLM 15	Overall Period of Performance: 9
CLIN Title: SMI Life-Saving House	Individual CLIN Period of Performance (as needed):
Park Acronym: SLBE	
PMS Number: TBD	

Estimator Name: Todd Slier	Overall Period of Performance: 9
Current Estimate Date: 2/11/2026	Individual CLIN Period of Performance (as needed):
Estimate Reviewed By: Seth Prazdzkowski	
Estimate Reviewed Date: 2/11/2026	

Overall Quantity: 1	Lump Sum (LS)
Unit of Measure: 4100 Building	
Asset Code: 4100 Building	
Facility Type: 4110 Office	

Estimator Name: Todd Slier	Overall Period of Performance: 9
Current Estimate Date: 2/11/2026	Individual CLIN Period of Performance (as needed):
Estimate Reviewed By: Seth Prazdzkowski	
Estimate Reviewed Date: 2/11/2026	

GOLO
Cost Schedule

- No Allowances or Lump Sums can be used with Class B or Class A estimates. Estimate will be rejected if used.
- Rounding or Pkg numbers are not acceptable. Estimate will be rejected if used.
- To the left of the Uniform IWB Codes (Work Breakdown Structure), click outline symbol + (dots) to show expanded groups required for the IGE and begin entering details. For full use of the worksheet, unprotect the sheet in the Review ribbon.

Uniform IWB Code	Description	Quantity	Unit	MATERIAL		LABOR		EQUIPMENT		OTHER		DIRECT CONSTRUCTION		NET CONSTRUCTION	
				Material Cost/Unit	Total Material Cost	Labor Cost/Unit	Total Labor Cost	Equipment Cost/Unit	Total Equipment Cost	Other Cost/Unit	Total Other Cost	Total Cost/Unit	Total Cost	Total Cost/Unit	Total Cost
G40	TOTAL SITE ELECTRICAL	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G50	TOTAL OTHER SITE CONSTRUCTION	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
G60	TOTAL GENERAL CONDITIONS & REQUIREMENTS	1	LS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
DIRECT COSTS				\$390	\$390	\$0	\$0	\$0	\$0	\$557,390	\$557,390	\$0	\$0	\$561,290	\$561,290
TAXES				\$0	\$0	\$0	\$0	\$0	\$0	\$13,377	\$13,377	\$0	\$0	\$13,377	\$13,377

TOTAL NET CONSTRUCTION
Variance Check: \$1,854,961.57
 (Check for formula errors if cell is RED)

MARKUP TYPES	DESCRIPTION	TOTALS
A	Class C.B Park Location Factor (PLF): 5.33% A combination of the city cost index and remoteness to the Park Visitor Center. The Park Location Factor (PLF) is automatically inputted when the park acronym is inserted on the Price Schedule.	\$29,895.14
B	Class C.B Project Specific Remoteness: 54.25% Added cost of remoteness from the Park Visitor Center to the project specific location in the Park. Use minimum 7.75% for every 10 miles for water only access. Includes Barger Transport Costs.	\$304,499.88
C	Class C.B Federal Wage Rate Factor: 0.00% Using the attached Wage Rate Calculator, wage rate needs to be adjusted. Applied to 60% of Other Cost.	\$0.00
D	Class C.B State & Local Taxes: 6.00% Material: 0 Labor: 0 Equipment: 0 Other: x	\$13,377.36
E	Class C.B Historic Preservation Factor: 0.00% (Approximate Range 5% to 10%) Based on level of work on historical resources	\$0.00
F	Class C.B.A Design Contingency: 20.00% This ranges based on ASTM E2516 Expected Accuracy Range/Tolerance for design contingency and estimators best professional judgement based on phase of design, complexity, and size of project.	\$112,259.02
Total Direct Construction Costs:		\$1,021,520.52
G	Class C Standard General Conditions: 24.88% (Approximate Range 4% to 20%) Standard field general requirements and conditions for duration of project, based on previous park projects.	\$254,104.55
H	Class C Government General Conditions: 5.00% (Approximate Range 5% to 10%) Government requirements including, quality assurance and safety requirements. (See Division 1 Specifications for guidance.)	\$51,066.03
I	Class C.B Testing & Inspections: 1.00% (Approximate Range 1% to 3%) Soils, structural, material, and MEP (mechanical, electrical & plumbing) testing with inspection requirements.	\$10,413.21
J	Class C.B Permits & Fees: 1.00% (Approximate Range 0% to 2%) Wetlands, local fire requirements, sanitary, water, electrical local utility agency fees.	\$10,413.21
Subtotal NET Construction Cost:		\$1,346,917.50
K	Class C.B.A Home Office Overhead: 16.00% (Approximate Range 4% to 18%) Applicable for type and size of construction per previous park projects.	\$215,506.80
L	Class C.B.A Profit: 10.00% Can not exceed 10% per FAR (Federal Acquisition Regulation) requirements.	\$134,691.75
M	Class C.B.A Performance Bond: 2.00% (Approximate Range 1% to 2.5%) Construction bonding for contractor and subcontractors. The smaller the company the higher the rate.	\$26,938.35
Estimated NET Construction Cost:		\$1,724,654.40
N	Class C.B.A Contracting Method Adjustment: 5.00% Verify with project team which contracting method is to be used. Recommendations are 2 step Best Value Full and Open 5%.	\$86,202.72
O	Class C.B.A Inflation Escalation Annual Rate: 5.00% Aggregate Rate - Use 5% for 2026	44,704,435.34
Total Estimated NET Cost of Construction:		\$1,854,961.57
Variance Check:		\$1,854,961.57
Total percentage markup		330%
Check for formula errors if cell is RED		

MARKUP PERCENTAGES will initially be populated from the **Markups worksheets** but can be overwritten as the **design is developed or for changing requirements of the individual CLIN**.

CURRENT DATE TO MIDPOINT OF CONSTRUCTION (Months): 6
 Include construction start/finish dates with duration of work in months.

Wage Rate Factor Analysis

Park: Sleeping Bear Dunes National Lakeshore
 Project Title: South Manitou Island Cultural Landscape Report
 Published Market Center: Traverse City, Michigan
 Project County: Leelanau County
 Davis Bacon Decision: WD # MI20260130

Date Updated: 1/2/2026
 Estimate Data Source: ACC Proprietary Database
 Market Center Adjustment Factor: 81.2%
 Estimator: Todd Slater

Trade	2026		Market Adjusted Wage Rates for Traverse City, Michigan	Davis Bacon with Fringe Wage Rates for the county of: Leelanau County	Wage Difference	Wage Adjustment Factor
	RSMeans National Average Direct Wage Rates					
Equipment Operator (average)	\$ 72.18	\$	\$ 58.61	\$ 64.75	\$ 6.14	10.5%
Ironworker (Structural/reinforcement)	\$ 74.13	\$	\$ 60.19	\$ 66.06	\$ 5.87	9.7%
Common Laborer	\$ 53.76	\$	\$ 43.65	\$ 39.68	\$ (3.97)	-9.1%
Truck Drivers (average)	\$ 62.84	\$	\$ 51.02	\$ 21.95	\$ (29.07)	-57.0%
Average Wage & Adjustment Factor:			\$ 53.37	\$ 48.11	\$ (5.26)	-11.5%

Conclusion:

Davis Bacon Wage Rates for Leelanau County are on average more/less than RSMeans

Trades represent the workforce composition which will staff the majority of this project and also closely match the adjusted RSMeans rates. -11.5%

When greater than 0%, add appropriate Wage Adjustment Factor percentage to Federal Wage Rate Factor in the Markups.

If Wage Adjustment Factor is less than 0%, then the rate used for the estimate Federal Wage Rate Factor should be 0%.

Note: Adjustment Factor should only be applied to the Labor of the estimate.

[Davis Bacon Wage Rates \(Wage Determinations\)](#)

Continue wage rate comparison and conclusion narrative:

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Appendix

Appendix A: Treatment Terminology

The following terminology is used in this report to describe recommended actions.^{A1}

Consider is to routinely evaluate if a treatment action can be undertaken. Budget constraints and long-term maintenance may result in delayed treatment action. As circumstances change, the treatment action should be reevaluated and eventually completed.

Design intent refers to the creative objectives that were applied to the development of a historic property.

Introduce is the addition of a new, nonhistoric feature compatible with the cultural landscape. This may also include the replacement of a missing historic feature.

In-kind refers to the replacement of features extensively deteriorated or missing parts of features using materials that match the historic detail, configuration, and appearance as closely as possible.

Maintain refers to measures that sustain the form, integrity and materials of contributing features, either on a regular basis or as a nonrecurring event.

Preserve refers to those measures necessary to sustain the existing form, integrity, and materials of contributing features. It includes initial stabilization work, where necessary, as well as ongoing preservation maintenance and repair of historic materials and features.

Protect refers to actions to safeguard a historic feature by defending or guarding it against further deterioration or loss. Such action is generally of temporary nature and anticipates future preservation treatment.

Reconstruct refers to the act or process of depicting, by means of new work, the form, features, and detailing of a non-surviving historic structure or any part thereof, for the purpose of replicating its appearance at a specific time in its original location.

Rehabilitate refers to the act or process of allowing a compatible use through repair, alteration, or additions as long as those features that convey the historical, cultural, or architectural values are preserved.

Repair refers to those measures that are necessary to correct deteriorated, damaged, or faulty materials of features. These measures are more extensive than regular maintenance and undertake work necessary to bring a contributing feature or area to good condition.

Restore refers to those measures necessary to accurately depict the form, features, and character of a property as it appeared during a particular period of time by means of the removal of features from other periods in history and reconstruction of missing features from the restoration period.

Retain are those actions that are necessary to allow a feature (contributing or noncontributing) to remain in place in its current configuration and condition.

Stabilize refers to those measures that require more work than standard maintenance practices, and that are necessary to prevent the further deterioration, failure, or loss of contributing features.

A.1 Adapted from The Secretary of the Interior's Standards for the Treatment of Historic Properties as amended and annotated, 1995 and <http://www.nps.gov/dscw/definitions.htm>.



Sleeping Bear Dunes National Lakeshore
**South Manitou Island Life-Saving Station
and Village**
Cultural Landscape Report

April 2026