Mukai

Farmstead and Garden

PRESERVATION PLAN

April 2017

This report was commissioned by the Friends of Mukai.

Funding was provided by a grant from 4Culture and donations.

Published April 10, 2017.

Cover image courtesy of the Friends of Mukai.

Contents

Preface

The National Register of Historic Places and King County Landmark listed Mukai Farmstead and Garden (Mukai Farmstead) stands on Vashon Island, just west of the town core. The Mukai Farmstead is a unique, largely intact property on the West Coast showing remarkable example of the Japanese American immigrant experience in the first half of the 20th Century. The combination of fruit farm, barreling plant, garden, house, and land provide a singular setting and remain a valuable and unique representation of the Japanese emigrant experience and Washington history.

Commitment by the Friends of Mukai, 4Culture, King County, and the Department of Archaeology and Historic Preservation supported development of this plan to guide ongoing stewardship and support the growth of educational and interpretive activities. Due to the rarity and complexity of the property this plan is intended to help the Friends of Mukai comply with regulatory requirements, and inform future decision-making about the utilization of historic buildings, the treatment of the historic grounds, collection curation, and archaeological and cultural resource management and protection.

Key to this direction is the work completed by Friends of Mukai in 2016 to craft their vision, mission, and values for the site. This work in turn informed Friends of Mukai workshops to develop use and programming for the property.

The plan builds off the 2016 Mukai Farmstead and Garden Phase 1: House and Garden Stabilization Needs, Historic Structures Report, funded by 4Culture and completed by Artifacts, the 2016 Historic American Landscape Survey, and shaped around expectations regarding historic property management from King County and the State Department of Archaeology and Historic Preservation. The GIS database created as part of this plan provides a means to easily update and share information as projects move forward. Recommendations in the plan flow from experience working with and integrating a comprehensive treatment approach for large scale sites. They build on the treatment recommendations identified in the phase 1 report listed above. The plan also responds to the vision and site use planning done by the Friends of Mukai to tailor a management approach to the property specific to the vision, mission, and values developed for the property.

Contributors

The authors of this report wish to extend our gratitude and appreciation for the efforts of the following persons and organizations, without whom preparation of this report would not have been possible: The Friends of Mukai, in particular Lynn Greiner, Kelly Robinson, Bruce Haulman, Glenda Pearson, Cindy Stockett, Bob Horsley, Kay Longhi, Steve Brown, Tom Spring, and Benno Bonkowski. All the volunteers at the Vashon-Maury Island Heritage Association for their research help. Flo Lentz, formerly of 4Culture, for her assistance and leadership. Steve Stockett for taking drone images of the site. MaryJo for sharing her knowledge of the site with Susan Johnson. Barbara Steen and Marie "Toodie" Blichfeldt for sharing their experiences in the barreling plant with Katie Chase.

Project Team

Project team was led by Artifacts Consulting staff. Spencer Howard, managing partner, provided project management, field work coordination, photography, and writing. Katie Chase, partner, assisted in field work, archival research, photography, writing, and report design and layout. Susan Johnson, associate, assisted in field work, archival research, photography, and writing.

The following members of the Friends of Mukai Board of Directors provided critical support throughout the process and workshops: Benno Bonkowski, Kathleen Farner, Lynn Greiner, Bruce Haulman, Ellen Kritzman, Alice Larson, Flo Lentz, Kay Longhi, Helen Meeker, Joe Okimoto, Glenda Pearson, and Barbara Thal Schroeder

Additional team members included: James Cary and Jesse Belknap of Cardinal Architecture, who developed as-built drawings and developed the site uses and programming plan; Karen Kiest and Meredith Hall of Karen Kiest Landscape Architects, who developed the landscape treatment and assessment and cherry tree planting plan;

Julianne Patterson, who prepared the paint analysis; Judith Clegg, who facilitated the Friends of Mukai board meetings; and Jerry O'Hare, who conducted the land survey.

List of Abbreviations

KCL - King County Landmark

NRHP - National Register of Historic Places

WHR - Washington Heritage Register

VIPCo - Vashon Island Packing Company

Administrative Data

The property encompasses two King County tax parcels and includes the following resources.

- Agricultural fields
- Agricultural shed
- Barreling plant
- House
- House garden
- Japanese garden
- Office
- Site (overall)
- Woods

Historic Name

Mukai Farmstead, Mukai Cold Process Fruit Barreling Plant, Mukai and Son, Vashon Island Packing Company

Current Name

Mukai Farmstead and Garden

Year Built

- Mukai house built 1928 (according to King County Assessor; newspaper accounts indicate 1930), garden, barreling plant (1927), equipment shed, brick office (1946)

Address

- 18005 107th Avenue SW, Vashon Island, 98070 (barreling plant, office building)
- 18017 107th Avenue SW, Vashon Island, 98070 (house, garden)

King count parcels

- 312303-9044 (barreling plant, office building)
- 312303-9148 (house, garden, shed/garage)

Township, Section, Range

- Township 23N, Range 3, Section 31, NW quarter

Acreage

- 4.8 total (separately, 2.05 and 2.75 each parcel, respectively)

Landmark status

- 1993, listed as a King County Landmark as Mukai Farmstead and Garden, local level, Criterion A1
- 1994 listed on the Washington Heritage Register and National Register of Historic Places, local level, Criterion A and C

Owner s

- Parcel 312303-9044 (barreling plant, office building): King County (pending finalization of sale from Zellerhoff Construction, Inc. in April of 2017)
- Parcel 312303-9148 (house, garden, shed/garage): Friends of Mukai

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Barreling shed. Courtesy Friends of Mukai.

1. Plan Use

A preservation plan is a written and illustrated reference document that provides a thorough historic and architectural evaluation of the built environment and landscape. The plan identifies significant original and subsequently added features, landscaping, and spaces, existing appearance and condition, and associated historic events. The purpose of this evaluation is to provide a basis that will be used to inform decisions relating to ongoing stewardship.

A preservation plan is usually prepared for sites that are on the National Register of Historic Places prior to planning any alterations, additions, rehabilitation, or restoration. These sites often contain multiple objects, buildings, structures, and designed and natural landscape elements. The plan allows the collective importance of these various elements, their individual contribution, integrity, and condition to be assessed and factored into decision-making. The plan is used to guide contemporary modification, re-use, or restoration of the property. The National Park Service, an agency of the U.S. Department of the Interior, establishes guidelines and content recommendations for the creation of preservation plans, and provides advice on when they should be done.

1.1 Mukai Farmstead and Garden

The Mukai Farmstead and Garden as a historic property encompasses two King County tax parcels and includes the following resources. The identity of the property and relationships between resources stems from its development by the Mukai family. The family's use of the property for residential, designed landscape, gardens, farmland, and food processing are all interrelated. Both the National Register of Historic Places (NRHP) and the King County Landmark (KCL) boundaries span both parcels.

The property is actively managed by the Friends of Mukai, a nonprofit Vashon-Maury Island Washington community and advocacy organization dedicated to securing, restoring, and operating the Landmark Mukai Home, Garden and Fruit Barreling Plant on Vashon-Maury Island, Washington. The Friends of Mukai are committed to making the Mukai Farmstead a vibrant educational and cultural center open to the public. It is a place for stories of Japanese people on Vashon Island and in the Pacific Northwest Region and stories of local fruit and strawberry farming and food processing.

TABLE 1: RESOURCE STATUS

Key resources follow below in alphabetical order.

Resource	Status relative to the National Register of Historic Places and the King County Landmark nominations
Agricultural fields	Historic, non-contributing
Agricultural shed	Historic, non-contributing
Barreling plant	Historic, contributing
House	Historic, contributing
House garden	Historic, non-contributing
Japanese garden	Historic, contributing
Office	Historic, contributing
Site (overall)	Historic, non-contributing
Woods	Non-contributing

1.2 Purpose, Goals, and Objectives

The Mukai Farmstead is in the process of being repaired and activated for a community and regional educational and interpretive role. This plan provides the background data to help the Friends of Mukai navigate that process.

Purpose

The purpose of this plan is to provide the technical data supporting decision-making and ongoing stewardship of the property by the Friends of Mukai while maintaining its historic integrity. This supports the educational and interpretive experience of visitors, as well as collaboration with community and regional partners. The plan provides the information needed to make decisions related to maintenance, modifications, and continued use of the property and its resources.

This plan is anchored on a detailed survey and inventory of architecturally and historically significant built environment and landscape features and spaces. As this document is employed in future planning and research related to the site, its content will guide decisions about maintenance, modification, and conservation of the built environment and landscape on a detailed level. The information incorporates an understanding of historic preservation design guidelines such as the Secretary of the Interior's Standards for Rehabilitation, and accepted architectural conservation methods.

This plan should be updated by the Friends of Mukai every five years to affirm or change treatments and plan for ongoing work.

Community and regional collaborators supporting the ongoing stewardship of the property include but are not limited to the following.

- 4Culture
- The Washington Trust for Historic Preservation
- The Washington State Department of Archaeology and Historic Preservation
- The National Park Service
- The Vashon-Maury Island Heritage Association
- Vashon-Maury Island Land Trust
- The King County Department of Historic Preservation
- King County Parks and Recreation
- Historic Seattle
- Members and descendants of the Japanese American community on Vashon
- The Densho Archive
- The Bainbridge Japanese Memorial Committee
- The Panama Hotel Jazz Project
- Vashon Allied Arts

Goals and Objectives

The following goals and objectives for the property were developed through the course of preparing this plan and the use and programming workshops with the FOM.

Goal 1: The historic resources comprising the property support educational and interpretive efforts related to the Mukai family, agriculture and the Japanese American experience on Vashon

Objectives:

- Utilize preservation, restoration, and reconstruction to support and enhance the visitor experience
- Adaptively re-use buildings with functions compatible with their historic uses
- Dismantle failed buildings rather than demolish
- Exert caution when disturbing areas with potential for archaeological materials

Goal 2: An information-based approach to manage change of the property

Objectives:

- Utilize the plan to guide treatment of resources
- Continue updating and adding information to the plan on a regular basis

Goal 3: Maintain collaboration with community and regional stakeholders.

Objectives:

- Maintain regular communication with the King County Historic Preservation Office to guide informational briefings to and design review before the Landmarks Commission
- Conduct public meetings as part of regular updates to the plan to seek community input.
- Seek ways to actively integrate stakeholders in educational and interpretive activities.

1.3 Plan Implementation Timeline

The following table provides an overview of key major steps. Refer to Treatment for detailed tasks. These are built out over a five year time period.

Timeline	Implementation Steps
2016-2017	The goals of this phase are to complete the following. The scale of work in this phase can be accomplished under direction of the Friends of Mukai and would not need a general contractor. ▪ Acquisition of the barreling plant and office property. ▪ Planning and documentation informing fund raising and work in subsequent phases. ▪ Stabilization and repair work on the property.
2018-2019	The goal for this phase is to undertake major restoration and site activation projects that build off the preservation and repair work in the first phase. Tenants should have been identified for the barreling plant and office and this phase would move forward work to bring them into these buildings.
2020-2021	The goal of this phase is to expand outward from the core historic buildings to complete work in the west portion of the site supporting broader interpretive and educational goals.

1.4 Methodology

The process of developing this plan involved a team approach and close collaboration with the Friends of Mukai. Artifacts served as the prime consultant coordinating the project team.

Cardinal Architecture: James Cary and Jesse Belknap conducted site visits to develop as-built drawings for the house. These provided the base reference for the paint analysis by Julianne Patterson and building survey by Artifacts. Cardinal Architecture participated in the use and programming workshops and developed the site uses and programming plan for the property. Cardinal Architecture staff conducted a site walk through of the Barreling Plant to develop a condition and planning level scope for rehabilitation of the building.

Karen Kiest Landscape Architects: Karen Kiest and Meredith Hall reviewed background on the landscape including the recently completed HAL survey and conducted site visits to survey the garden to assess conditions, identify plants, and meet with Friends of Mukai members to discuss development patterns, role and changes over time. This work in turn informed development of treatment recommendations to guide ongoing work on the garden.

Julianne Patterson conducted site visits to analyze paint layers in the house (exterior and interior) as well as limited sampling from the barreling plant exterior to document the original paint scheme for the buildings.

Judith Clegg facilitated the Friends of Mukai board meetings as Board members worked through development of the vision, mission, and values for the site as part of the site use and programming workshops.

Jerry O'Hare conducted a land survey of the site, recording the buildings, utilities, site topography, plants and site features.

Artifacts Consulting, Inc.: Coordinated and integrated the work into the plan. Spencer Howard and Mary Thompson participated in the use and programming workshops and development of comparable examples. Susan Johnson and Spencer Howard surveyed the building interior and exterior to development the treatment recommendations and report analysis and findings. Spencer Howard assisted Jerry O'Hare in the land survey to record site features and plants and developed the GIS database for the site integrating data from Jerry. Katie Chase conducted interviews and archival research, coordinated with the Research Committee, and developed the historic context for the site.

1.5 Organization

This plan utilizes the conventions for content and organization of a Historic Structures Report (HSR) identified in the National Park Service Preservation Brief No. 43, Preparation and Use of Historic Structures Reports (2005) as the base framework with expanded planning sections that developed from the site use and planning workshops.

The plan is organized around core management chapters with additional technical data provided in the appendices. The intent is to place the information that will be most frequently utilized up front and easy to access. More detailed data that will be needed for specific projects, but not accessed as frequently, is placed in the appendices.

Plan Use provides a summary for rapid consultation purposes introducing the property, stating the purpose of the plan, what the plan's goals and objectives are, the methodology utilized in preparing this plan, and a summary of the plan's organization.

Site Overview provides key reference data relative to the property boundaries, ownership, and development patterns summarized from the historic context.

Direction is divided into two sections. Management relates to the overall use and operation of the site and how to integrate preservation values into this process. The stewardship section provides guidance on managing different types of change that could affect the individual resources within the property in order to help manage change in a manner that retains the highest level of historic integrity.

Appendices: these provide detailed technical guidance for the resources, prioritized treatment recommendations for the property, as well as the use and programming data.

Japanese garden. Courtesy Artifacts Consulting, Inc.

2. Site Overview

2.1 Boundaries and Ownership

The property encompasses two King County parcels for a total of 4.8 acres. These represent the core remaining land holding related to the Mukai family and their agricultural activities.

- 312303-9044 (barreling plant, office building)
- 312303-9148 (house, garden, shed/garage)

Each of the parcels has a different owner. FOM and King County anticipate development of a memorandum of understanding that would guide management activities of the 312303-9044 parcel by the FOM. This would enable a single, unified management approach to the full property and associated resources.

- Parcel 312303-9044 (barreling plant, office building): King County (pending finalization of sale from Zellerhoff Construction, Inc. in April of 2017)
- Parcel 312303-9148 (house, garden, shed/garage): Friends of Mukai

The boundaries for the following historical designations span both parcels.

- 1994 listed on the Washington Heritage Register and National Register of Historic Places, local level, Criterion A and C
- 1993, listed as a King County Landmark as Mukai Farmstead and Garden, local level, Criterion A1

2.2 Development

Period of Significance

Artifacts recommends the period of significance for the Mukai Farmstead and Garden to be 1926–1942, as outlined in the National Register of Historic Places nomination. While the Mukai family continued to own the property after 1942, this period is when the Mukais were the most directly involved in the day-to-day operation of the agricultural operation. This period includes the construction of all the major buildings and site features on the property, all of which are associated with the Mukai family.

Areas of significance

Designated historic properties like the Mukai Farmstead and Garden have areas of significance listed on the nomination form. These are broad categories related to the history of the property. The NRHP nomination for the Mukai property lists the following areas of significance:

- Agriculture
- Commerce
- Ethnic Heritage
- Landscape Architecture

Themes

Themes for a historic property, at least in discussing it's significance, can get to the more specific events or patterns of history related to the property. They should relate to the broad areas of significance defined, but relate more site specific information.

Themes can also help shape interpretive efforts for historic properties like the Mukai Farmstead and Garden. The National Park Service defines interpretive themes as:

> *Ways of organizing a site's or region's stories to communicate important messages about the place and what it means to people. Stories connect people to each other, their families, their communities, and the landscape. Themes connect the past to the present and reveal something about the future. They embody and reinforce the sense of place that makes an area special. Themes and stories are truly at the heart of interpretation.*[1]

Themes state the significance of the place, what happened, and why it is important. Themes go further than simply stating the facts about a place, but articulate its continuing relevance.

Keeping in mind the aforementioned areas of significance, key themes for the Mukai Farmstead and Garden tie into the Japanese American experience on Vashon Island, the agricultural products grown on the island (particularly by the Mukai family), and the uniqueness of the Japanese-style gardens, all in the course of the 1920s through 1940s.

1 Chesapeake Bay Office, National Park Service, "Interpretive Planning Tools for Heritage Areas, Historic Trails and Gateways," (July 2010), 27.

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B.D., grandson Milton, and Kuni Mukai in front of a cherry tree. Courtesy Friends of Mukai.

3. Direction

This section provides the key background and decision-making information to support the ongoing management and stewardship task for the property.

3.1 Management

Management of the property is a substantial undertaking due to both the complexity of the property and its community and regional importance. The Friends of Mukai active engagement in this role led to the development of this plan to support their ongoing work.

3.1.1 Vision and Mission

The Friends of Mukai finalized the following vision at an August 15, 2016 Mukai Board Meeting. The vision, mission, and values are the guiding framework shaping all subsequent uses, treatments and recommendations developed in this plan.

Vision

The Mukai Farmstead and Garden inspires appreciation and respect for the accomplishments and contributions of Vashon Island's Japanese American immigrant community during the 1920s through 1940s, particularly the Mukai Family, and creates a deeper understanding of the cultural, economic, and political complexities of the era in which they lived.

Mission

To restore and preserve the Mukai Farmstead and Garden, interpret the historical impact of the Mukai family and the broader Japanese immigrant community on 20th Century agriculture, business, and community life, and celebrate the ongoing role of this historic landmark in our community.

3.1.2 Use Values and Objectives

Potential uses developed through a series of workshops with the Friends of Mukai board centered around the Mukai family as the anchor to the site with uses supporting telling the story of the Mukai family, the Japanese American experience on Vashon, and agricultural history of Vashon. Refer to Appendix B Uses and Programming for a list of these uses and associated background.

The basic measure of use compatibility is whether there was historic precedent related to the resource.

This approach does not restrict use of the

resources to their original use(s), but seeks compatible uses that support the following use values and objectives while maintaining the historic integrity of the property.

Values

- Be transparent in all aspects of stewardship of the property
- Become financially and environmentally sustainable in order to responsibly steward the future of the property
- Perform up to industry standards with regard to the archives, gardens, house, and other aspects of the property
- Maintain a commitment to educating the public about the property, the Mukai family, and the broader Japanese American experience.

Objectives

- Interpretation and education
  - » Ongoing curation of stories told at the property
  - » High level and standard for interpretation and educational materials
  - » Living agricultural history and advances in technology
  - » Japanese American experience on Vashon and regionally
  - » Cultural tensions, evident in the house/site/garden relationships
  - » Success of the family amidst the context of cultural tensions and World War II
- Quality of experience
  - » Basis for first time and repeat visitation
  - » Intimacy of the home and garden to be retained as a key element in communicating the cultural stories
  - » Strong sense of place embodied in the property that does not need to be overly restored, it was a working farm and does not need to be perfect
  - » Inviting, visually appealing, easily accessible property
  - » Historically responsible to the stories at the site, is there a story that supports each use, that uses are story driven
  - » Starting with local history and expanding outward to embrace regional connections
  - » The experience is about this place and the people who built it
- Economic sustainability
  - » Active tenant role in the site and building rehabilitation
  - » Working agricultural lands and potential for revenue
  - » Need public and private support
  - » Rentable spaces for groups and events
  - » Paid tours
  - » Balancing high intensity and low intensity uses
  - » Long-term, getting to paid staff
  - » Cannot let revenue generation override the stories and the responsibility to the historical integrity of the property
  - » Transparency in operation
- Stakeholder and partner engagement
  - » Community participation with the property
  - » Japanese American community outreach and engagement
  - » How to get people to the site
  - » Support in the management and operation of the property

3.1.3 Decision-making Matrix

The following decision-making matrix below merges the elements of architectural and historical significance and current condition within the over-arching treatment recommendation for the property along a pathway that results in a recommended approach to the future treatment of the individual resources, features, and spaces.

The matrix can guide the organization of a future use program to best match existing resources and spaces with uses based on corresponding levels of architectural significance and public access. The more important, public, significant, and intact the resource, space or feature, the more careful attention should be paid to its preservation and enhancement. Conversely, the more a resource, space or feature has served a private role or been previously altered in a non-compatible manner, thus removing historic fabric, the more amenable this feature or space

Significance | **Visibility**	**Public**	**Semi-public**	**Semi-private**	**Private**
Primary	Preserve/Restore	Preserve/Restore	Preserve	Preserve
Secondary	Preserve	Preserve	Rehabilitate	Rehabilitate
Minimal	Rehabilitate	Rehabilitate	Adaptive Re-use	Adaptive Re-use
None	Adaptive Re-use	Adaptive Re-use	Adaptive Re-use	Adaptive Re-use

is to compatible new work to accommodate an adaptive new use. Thus, further changes should be consolidated to features and spaces already altered, thereby reducing the need for and extent of modifications to intact, historically and architecturally significant features and spaces. These zones are mapped under the technical guidance appendices for each resource.

Primary, public and semi-public resources, spaces, and features should be preserved in their existing locations and conditions or restored to their original appearances per their period of significance to support and enhance their interpretive value and educational role.

Primary, semi-private and private resources, spaces, and features should be preserved to the extent feasible within the context of adaptive re-use of the resource or space.

Secondary, public and semi-public resources, spaces, and features should be preserved to the extent feasible within the context of adaptive re-use of the resource or space.

Secondary semi-private and private resources, spaces, and features should be rehabilitated. Rehabilitation of these resources and spaces can balance retention and re-use of existing significant resources and spaces while making the resources and spaces more functional.

Minimal, and Non-significant public, semi-public, and private interior spaces and exterior features with less important architectural features and spaces, or those that are not character-defining, would be eligible for rehabilitation in which modifications to the features or spaces will have less impact on the historic significance of the building.

As a general guide to the approaches and levels of treatment recommended, this plan utilizes the tools and terminology developed for Historic Structures Reports by the federal departments engaged in historic preservation policy and implementation. The historic preservation community in the United States broadly follows guidelines established by the U.S. Secretary of the Interior for treating historic properties. These guidelines delineate four different approaches that are generally accepted as standards for treating architectural spaces and features. They are preservation, rehabilitation, restoration, and reconstruction or replication. These four standards can be applied to the development of programs for the building and to inform design development for future tenants.

- **Preservation** focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time. Protection and Stabilization are consolidated under this treatment. Preservation is defined in the Secretary of the Interior's Standards for the Treatment of Historic Properties (1995) as the "act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project."
- **Restoration** depicts a property at a particular period of time in its history, while removing evidence of other periods. Restoration is defined by the Secretary of the Interior's Standards for the Treatment of Historic Properties (1995) as the "act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and

plumbing systems and other code-required work to make properties functional is appropriate within a restoration project."

- **Rehabilitation** acknowledges the need to alter or add to a historic property in order to meet continuing or changing uses while retaining the property's historic character. Rehabilitation is defined by the Secretary of the Interior's Standards for the Treatment of Historic Properties (1995) as the "act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values."
- **Reconstruction or Replication** re-creates vanished or non-surviving portions of a property for interpretive purposes. Reconstruction is defined by the Secretary of the Interior's Standards for the Treatment of Historic Properties (1995) as the "act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location."

3.1.4 Interpretation and Education

Interpretation helps visitors to understand and appreciate historic and cultural places. It supports the stewardship mission of the site's management entity and should help realize the vision for the site in an impactful way to the community. It is, or at least should be, more than just relaying facts to visitors. Interpretation must offer meaning and relevance to the visitor. Visitors should be able to leave knowing basic information, but should also be able to answer the questions, "Why is this place important?" and, "Why does it matter to me or this community?" As the Friends of Mukai continue to think about interpretive programming at the Mukai Farmstead and Garden, they should weigh the mission and vision of their organization with the stories they want to tell through the site.

Interpretation of the property should connect with the broader themes of the Japanese American experience on Vashon Island, the agricultural products and methods used on Vashon Island, and the Japanese-style garden. The historic context information presented in Appendix A: Historic Context is an excellent starting point for this interpretive work, in addition to any ongoing research.

There are numerous ways to approach interpretation. All of the research collected by the Friends of Mukai and related heritage groups can inform and enhance interpretive efforts, particularly historic photographs and oral history interviews. The Mukai Farmstead and Garden, depending on the capacity of the Friends of Mukai group, is an excellent setting for any or all of the following approaches:

- **Public art** can be an exciting way to engage and introduce visitors to a specific story and can include murals, sculptures, memorials, and integrated architectural or landscape elements.
- **Signage**, or interpretive panels, are a traditional method for communicating the history and significance of a place.
- **Online content**, through websites or mobile-based applications, allow visitors (either physically or remotely) to learn about a place's history in a dynamic way. This content can be easily changed and updated as new information is gathered.
- **Walking tours, talks, and lectures** can create an engaging experience for visitors. Talks and lectures allow visitors to ask questions, but rely on trained volunteers and staff. Walking tours require time and funding to be written and designed, but can allow visitors to explore at their leisure.
- **Live performances** bring emotion and passion into the narrative, but require careful research.
- **Curriculum** can help connect students in the classroom with significant places and help history reach younger audiences.

3.1.5 Archaeology

The following identify approaches for complying with the National Historic Preservation Act and best practices for archaeological data collection and management.

- Identification of existing and former historic properties within the site to inform any future ground disturbance as to what they might encounter.

- Work with King County Historic Preservation Program on a project basis to identify applicable regulations based on funding, permits required, and they type of ground disturbance proposed. Establish procedures that address the following and ensure that contractors during the work understand these protocols.
  - » Inadvertent discovery of archaeological resources
  - » Inadvertent discovery of human remains

3.1.6 Emergencies and Natural Disasters

Emergencies and natural disasters introduce unanticipated changes to the property. Life and public safety should always be the primary focus during and immediately following any emergency event. As part of developing plans for integrating preservation into emergency response, the following is recommended:

- Stabilize the building to prevent damage to persons and further damage to the building, while providing time for the full level of impacts and alternative actions to be considered.
- Contact the King County Historic Preservation Officer and notify them of the level of damage and to engage in an assessment of the next actions relative to the resource.
- Contact DAHP to notify them of the level of damage and to engage them in an assessment of the next actions relative to the resource.
- In consultation with King County and DAHP, develop work strategies and/or mitigation to resolve the issues.

3.2 Stewardship

This section pertains to the ongoing management of the individual resources within the property.

No additions are anticipated to any of the resources. Additions to resources are any new substantial feature directly connected to the resource that expands upon or introduces a compatible new use to the resource. For buildings, these are an exterior addition, whereas for the Japanese garden this could involve an added expansion garden that historically never existed

3.2.1 Resource Re-use

Adaptive re-use of historic resources entails modifications to non-character-defining spaces and features to accommodate a new use. This includes the re-use of buildings, gardens, and agricultural lands. This process supports the continued educational and interpretive role of these resources.

- All of the resources must retain their historic character as part of re-use.
- Re-use functions must support the educational and interpretive goals set forth in the vision for the property and the historical functional relationships between resources.
- Public access must be provided to the site, the Japanese garden, and the interiors of the house and barreling plant due to their interpretive and educational role.
- The front deck, large sliding doors, front parapet, roof form, and main interior volume of the barreling plant, as a key interpretive space, should be given high priority for retention as part of the rehabilitation design.
- While the exterior of the office building is historically significant, the interior exhibits a high level of flexibility that could be readily retrofitted to accommodate a variety of use types and programming with minimal to no adverse impact to the exterior character-defining features of the building.
- Remove non-significant previous changes as part of adaptive use work for a new use, when the new use has no need for these previously added features.
- During construction, character-defining features of the resource and adjacent resources must be protected.

3.2.2 Code Compliance

If projects focus only on a strict compliance approach, a series of code-required actions may jeopardize a historic building's materials, as well as its historic character.

Integrating standards and preservation should occur early in the programming process. This can help avoid matching historic buildings with uses that would require overly extensive changes, making them both uneconomical and detrimental to the historic character of the building. Instead, functions can be paired with buildings capable of adapting to their needs or new additions or infill construction within or outside of the historic district.

- Engage the King County Historic Preservation Officer and Building Officials early in the conceptual stage for all work requiring a permit. Active and open communication will help to understand the requirements and where opportunities exist for alternative compliance paths.

3.2.3 Barrier-Free Accessibility

The interpretive value of the historic buildings, spaces, and landscape does not change based on the mechanics of access needs for different users. Compatible methods of universal access that both retain the interpretive experience and provide means of entry along with visitor independence are essential. National Park Service Preservation Brief 32 provides additional guidance on providing universal access for historic buildings: http://www.nps.gov/history/hps/tps/briefs/brief32.htm.

Overall there are several constraints for providing universal access per the American Disabilities Act (ADA), Architectural Barriers Act (ABA), and International Existing Building Code (IEBC). The following provide recommendations for routes that balance access with Secretary of the Interior's Standards for Rehabilitation compliance.

- House: the west entrance provides the best pathway for universal access. The doorway provides access to the first floor. The existing wood stairs are contemporary and could be replaced with a lift. The doorway is 36 inches wide and leads to the main hallway within the first floor. From this hallway the kitchen, bathroom, bedrooms, and parlor can all be viewed. The hallway also provides access to the living room and dining room.
- Barreling Plant: grade along the loading dock along the east side of the building rises to the north, historically enabling trucks of different heights to offload at the dock. This grade change facilitates the development of a ramp connection to the loading dock from the main parking and arrival area east of the building. The large sliding doors would afford direct access from the front of the building to the interior. As part of rehabilitation of the building this sequence and floor level within the building should be maintained or enhanced.
- Japanese Garden: there are two levels of access.
  - » One if from the parking lot at grade to the north garden and the pool. Design of the site drainage corrections and the parking lot should maintain/ enhance this grade connection through any adjustments within the parking area and not alter the grade within the Japanese Garden.
  - » The second is to integrate an approach as part of connecting an accessible route to the west entrance of the house, this route could continue up and around the south side of the house to connect with the existing sidewalk at the southeast corner. This would provide access to the upper level of the Japanese Garden and the lawn.
- Office: a broad sidewalk extends along the front west facade of the office providing access to the front entrance. Minimal site grading adjustments could provide a connection from the site to this sidewalk.
- Wooded area: conceptual planning for the trails has them following the topography through the area and utilizing a hard pack base for the trails. This should be refined as part of future development of these trails to provide a universally accessible path through the woods as part of their interpretation and associated educational efforts.
- Agricultural fields and house garden: these would connect directly off the parking area at grade. Future design and development of these resources should maintain/enhance this connection to provide universal access throughout the site.

3.2.4 Seismic Retrofit

Seismic upgrades and modifications are an essential component to maintaining user life safety and will be required for public use. There are, however, a variety of

ways to accomplish the same performance goals, and some have less impact on the character-defining features of historic buildings than others. National Park Service Preservation Brief 41 provides additional guidance on seismic upgrades to historic buildings: www.nps.gov/history/hps/tps/briefs/brief41.htm

Currently no seismic upgrades have been made to the house, barreling plant, or office. The following should be considered as part of planning and designing seismic upgrades to the buildings. Given the scale of the house and office, these will pertain mostly to the future rehabilitation of the barreling plant.

- Can bracing be installed without damaging decorative details, windows, doorways, or the appearance of the exterior and interior spaces?
- Are the visible features of the reinforcement, such as anchor washers or exterior buttresses adequately designed to blend with the historic building?
- Can shear walls be in utilitarian interior spaces to reduce the impact on finishes in the primary areas and help retain the primary main volume in the barreling plant?

3.2.5 Energy Efficiency and Sustainability

Energy efficiency and sustainable practices should be guiding principles when considering repair, restoration, or replacement of historic resources, including landscaping. Energy efficiency, sustainable practices, and historic preservation are not mutually exclusive; rather, they all have the same long-term goal of keeping buildings and landscape in operation so they can continue their educational and interpretive role.

The house, barreling plant, and office all have varying levels of insulation. On the house there have been past efforts at addressing air infiltration at windows and doors and localized areas of insulation added. Windows at the house have been screwed and painted shut eliminating their operability. The barreling plant has received some underfloor insulation.

Overall site goals:

- Seek to integrate sustainability goals alongside historic preservation goals in order to optimize energy savings, conserve water, and reduce the environmental impacts of waste materials through construction and operation.
- Seek opportunities to implement sustainable landscape maintenance practices supporting the historic character of the cultural landscape (Japanese garden, house garden, and agricultural fields) as part of broader efforts to reduce water and energy usage.
- New development should support sustainability goals and may provide opportunities for energy, material and water savings that the historic resources cannot achieve.
- Seek opportunities for compatible solar panel installation to support site heating and energy needs.

Individual resource objectives identified through field work.

- House
  - Insulate the attic; only a small area (over the kitchen) is insulated and this is inadequate
  - Upgrade the heating system to a high efficiency electric micro-boiler system and circulation pump to eliminate the cost and need for heating oil on site
  - Repair the windows, returning them to operation, installing weather stripping to reduce air infiltration, and constructing new exterior storm windows to increase the overall thermal insulation value.
- Japanese garden
  - Maintain existing historic landscapes and plantings, and protect during construction.
  - As part of restoring the water feature at the north garden, utilize design measures that will recycle and or reduce water volumes needed for the feature.
  - The remaining plants are demonstrably drought tolerant and adapted to the site conditions. Careful consideration for plant establishment – time of year, soil conditioning, plant size at installation – will improve the success of infill plantings and ultimately reduce water consumption. Plant viability and landscape sustainability must be considered and may recommend selection of different plantings from the original

installation, but only if clearly warranted.

  - » Original images indicate the lawns at the North Japanese Garden and the East Entry Lawn were carefully maintained, including sprinklering and regular mowing. Provision for irrigation of these areas should be evaluated for its value to the appreciation of the site.
  - » The site programming has the opportunity to demonstrate and interpret historic and contemporary horticultural practices, specifically watering practice for the Japanese Garden, the lawns, the kitchen garden and agricultural crops.
  - » Develop watering practices for the garden that minimize the volume of water utilized and support deeper root growth while sustaining the garden.
  - » Integrate sustainability goals into the design for the south garden, including the selection drought tolerant plants.
  - » Develop an approach to mulching that is compatible with the design of the garden and supports water retention.
  - » Support sustainable practices in plant production through the purchase of plants and materials from businesses and providers that reduce resource consumption and waste and employ sustainable practices.
- Barreling plant
  - » Integrate sustainability goals into the design for the rehabilitation of this building.
- Office
  - » Integrate sustainability goals into the design for the rehabilitation of this building.
- Agricultural fields
  - » Integrate sustainability goals into the design for farming activities. Since the fields would be a new use on the site based on historic precedent, there would be greater flexibility in integrating sustainability goals.
  - » Support sustainable practices including, but not limited to, use of sustainable soil amendments, reduced irrigation runoff, reduced greenhouse gas emissions, reduced energy consumption, use of Integrated Pest Management (IPM) practices, reduced water consumption, reduced waste, and recycling of all organic matter.
- House garden
  - » Integrate sustainability goals into the design for farming activities. Since the garden would be a returning a previously removed past use to the site based on historic precedent, there would be greater flexibility in integrating sustainability goals.
  - » Support sustainable practices including, but not limited to, use of sustainable soil amendments, reduced irrigation runoff, reduced greenhouse gas emissions, reduced energy consumption, use of Integrated Pest Management (IPM) practices, reduced water consumption, reduced waste, and recycling of all organic matter.
- Site
  - » Integrate sustainability goals into the design for site drainage correction and new parking design. This could include integrating the wooded area as a component in the site drainage to support the sustainable management of storm water and the cultivation of native plants within the wooded area.
  - » Use paving materials with solar reflective index of at least 29 to reduce the role of the parking area as a heat island, and consider using an open-grid or other permeable pavement system (e.g. concrete-grass lattice).
  - » Re-use salvaged materials where appropriate to divert them from the landfill.
- New development
  - » Integrate sustainability goals into the design for any new buildings.

3.2.6 Hazardous Materials

Hazardous materials are a common issue for historic buildings. Buildings may be made safely habitable while preserving architectural character. Controlling the hazards, rather than partial or complete removal, is the preferred approach under the Secretary of the Interior's Standards for the Treatment of Historic Properties.

The following recommendations presume interior and exterior paint finishes throughout the building as well as that the window glazing putty contains lead. The paint layers are historically significant for types of finishes used, colors, frequency of application, and changes over time.

Asbestos-containing wraps appear (based on physical character and age) to exist around steam lines within the basement. No testing was conducted to confirm insulation wrap materials. New plumbing work has been done with ABS piping and copper. No abatement of existing steam lines has been conducted.

The prioritized system for lead abatement, outlined below, is recommended. Wholesale removal of interior finishes and features is not appropriate for the building given its history and significance. Testing to verify lead content should precede each of these steps for all significance levels.

- **Character-defining features**
  - » Encapsulation. Involves managing lead paint through careful cleaning and repainting. This retains the valuable chronology of historic paint layers and materials and preserves the features in their original locations.
  - » Abatement if encapsulation will not work. An architectural conservator must first assess the feature or space to determine original paint types, sequence, and colors. All fixed features such as trim, casings, fireplace mantel, and plaster should be abated in-situ. Doors and removable features can be stripped and refinished offsite.
- **Non-character-defining features should be removed.**

NPS Preservation Brief 37 addresses lead-based paint issues relative to historic residential buildings, in particular how to "plan and implement lead-hazard control measures to strike a balance between preserving a historic building's significant materials and features" while also protecting human and environmental health. Complete paint stripping is discouraged due to the potential loss of paint chronology and highly significant decorative finishes and paint layers.[1] Paint chronology can be an important tool for dating changes to a building and understanding periods of use. In lieu of complete paint removal, careful surface preparation and repainting with lead-free top coats (encapsulation) is recommended by the NPS as well as the U.S. General Services Administration (GSA). If significant decorative finishes are deteriorating, a paint conservator should be consulted. Once paint layers are stabilized, a clear finish or other protective layer may be added. If total removal is the best option, then analysis and documentation should be done prior to removal.[2] Other abatement methods, such as rigid enclosure, are also discussed in the brief but are not recommended for significant historic properties. The brief suggests a three-step plan prior to undertaking lead abatement:

- Identify the historical significance of the building and architectural character of features and

1 Significant decorative finishes may include but are not limited to polychrome decoration, stenciling, marbleizing, faux graining, and murals.

2 NPS Preservation Brief #37, Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing, 2.

finishes.

- Conduct a risk assessment of interior and exterior surfaces to determine lead hazards (including paint analysis, if possible).
- Evaluate options for hazard control relative to historic preservation standards.

Resources:

- NPS Preservation Brief 37, Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing: http://www.nps.gov/hps/tps/briefs/brief37.htm
- GSA procedure 0990002R, Reducing Lead-Based Paint Hazards Using Abatement Techniques on Windows: http://w3.gsa.gov/web/p/HPTP.NSF/gsagovAllProceduresDisplay/0990002R
- GSA procedure 0990003R, Reducing Lead-Based Paint Hazards Using Interim Control Techniques on Windows: http://w3.gsa.gov/web/p/HPTP.NSF/gsagovAllProceduresDisplay/0990003R
- GSA procedure 0990003S, Evaluating When Lead Paint Mitigation Is Necessary: http://w3.gsa.gov/web/p/HPTP.NSF/gsagovAllProceduresDisplay/0990003S
- GSA procedure 0990010S, Protection Measures for Lead-Based Paint Hazard-Reduction Work: http://w3.gsa.gov/web/p/HPTP.NSF/gsagovAllProceduresDisplay/0990010S
- EPA: Renovation, Repair and Painting http://www.epa.gov/lead/pubs/renovation.htm

3.2.7 New Construction

- Infill development consists of new construction (free-standing buildings, structures, trails, and gardens) within the property. The development patterns of the farm provide a basis to guide new construction.
- New construction must directly support the vision, values, and mission of the property.
- New construction must be compatible with the historic character and uses of the property and its resources.
- New construction should constitute a lasting and permanent investment in the property, and as such aspire to a design quality equal to the existing buildings and sustainability goals for the property.
- The use of new construction provides an opportunity to accommodate uses supporting the property's educational and interpretive function while minimizing impacts to historic resources (such as the need to provide an onsite public restroom without having to fit this function into the house or barreling plant and altering historic spaces).
- Locations for new construction should not diminish the historic character of the site or adversely impact historic resources. As a general principal, new construction should seek locations behind (west of) the historic resources to per historical farm outbuilding development patterns.
- Concentrate new construction around infrastructure development to minimize development and ground disturbances.
- During infill construction, archaeological and property resources must be protected.

3.2.8 Views

Views connect us with past events through current scenery. Vegetation growth and development around the site have substantially changed the character of historic views and the visibility of the property. The following identifies key views to and from the property to support their retention and interpretation.

TABLE 2: VIEWS

ID	View	Associative Qualities
	Japanese Garden-House	Primary role, having the following associations: ▪ Design and cultural tensions between the house, lawn, and Japanese Garden ▪ Design preferences and differences between Masa and Kuni Mukai
	Barreling Plant-House	Primary role, having the following associations: ▪ Activity around the barreling plant related to the strawberry harvest and processing and a visual connection between this operation and the family's house
	107th Avenue Southwest	Primary role, having the following associations: ▪ Arrival sequence from Vashon Town to the site and the public approach to the barreling plant, house, and Japanese Garden
	East Fields - House and Japanese Garden	Secondary role, having the following associations: ▪ Vegetation growth across 107th Avenue Southwest obscures this original view; however, originally the visual relationship between the house and the surrounding strawberry fields, as well as the visual prominence of the cherry trees around the property for workers out in the fields conveyed the connection between the family and the agricultural activities. ▪ The trees also provided a visual connection and point of reference from Vashon Town.
	South Fields – House and Japanese Garden	Secondary role, having the following associations: ▪ Vegetation (conifers and cherry trees) growth to the south of the property was always intended to obscure the views to the south, so the relationship isn't that different today.

The View ID allow cross referencing between the vantage point shown on Figure 4.68 and the table. The associative qualities column links key components of the views back to the overall historic significance and interpretive value of the site. These associative qualities identify how this view relates to historic use patterns and periods of significance for the site and can provide a starting point for considering potential interpretive themes from these vistas.

3.2.9 Mothballing

In the event a building is expected to remain vacant for an extended period (several years), then steps to prevent its loss and damage should be undertaken. In a mothballed state the building can continue to contribute visually to the overall interpretive functions of the site and provide an important fundraising tool to support its activation.

Issues to consider for this treatment:

- Documenting current condition through a walk through with the King County Historical Architect
- Structural stabilization if any is needed
- Provisions for the control of pest populations and entry points (such as insects, birds, rodents)
- Weatherizing the exterior, including patching the roof, protecting and securing windows and doors to prevent unauthorized entry and water infiltration
- Security of the building as part of the overall site

to prevent vandalism

- Ensuring there is ventilation to allow moisture to escape the building
- Establishing a regular inspection cycle to enter the building and confirm there are no issues.
- Steps for closing up a building are outlined in the National Park Service Preservation Brief 31, Mothballing Historic Buildings: http://www.nps.gov/hps/tps/briefs/brief31.htm

3.2.10 Collections

Collections constitute an important part of the significance and storytelling capacity of the property. As of this writing collection assessment work is underway through the coordinated efforts of the Friends of Mukai and 4Culture. The methods and findings resulting from this process will be integrated by the Friends of Mukai into an appendix of this plan for future reference.

3.2.11 Building and Land Use

Site areas:

- Mukai House: 119,790 SF (2.75 Acres)
- Barreling Plant: 89,298 SF (2.05 Acres)
- DeFrang House:100,188 SF (2.30 Acres)

All (3) parcels are zoned RA-5 (Rural Area, (1) Dwelling Unit per 5 Acres)

Permitted uses:

- Residential Uses (KCC 21A.08.030)
  - » Detached single family permitted, (1) unit per lot
- Recreation & Cultural Uses (KCC 21A.08.040)
  - » Parks permitted
  - » Trails permitted
  - » Outdoor performance centers – conditional as accessory to permitted nonresidential use
  - » Museum/Library permitted as accessory to a park or building listed as an historic site on the National Register
- Retail Uses (KCC 21A.08.070)
  - » Agricultural products sales ‹2000 SF permitted on sites ›4.5 acres
  - » Eating and drinking places permitted ‹750 SF as an accessory to a park, or conditional ‹3500 SF
- Manufacturing Uses (KCC 21A.08.080)
  - » Food products permitted as accessory to agricultural uses on sites ›4.5 acres
  - » Processing space ‹3500 SF and ›75 feet from property line or located in an historic building
  - » Agricultural products only, 60 percent sourced from Puget Sound area
  - » Winery/Brewery/Distillery permitted with similar restrictions to food processing
- Resource Uses (KCC 21A.08.090)
  - » Growing and harvesting crops permitted

RA-5 Site Minimums (Apply to New Construction/Parcels Only) (KCC 21A.12.030)

- Minimum Lot Area: 3.75 acres
- Minimum Lot Width: 135 feet
- Minimum Street Setback: 30 feet
- Minimum Interior Setback: 10 feet
- Base Height: 40 feet

Off-Street Parking Requirements based on Use (KCC 21A.18.030)

- Residential: (2) spaces/Dwelling Unit
- Recreation/Cultural: (1) space/300 SF
- Manufacturing: (.9) space/1000 SF
  - » (1) space/50 SF for Tasting Rooms
- Retail: (1) space/300 SF
  - » (1) space/75 SF for Restaurants

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B.D. Mukai and workers, date unknown. Courtesy the Friends of Mukai and the Department of Archaeology and Historic Preservation.

A. Historic Context

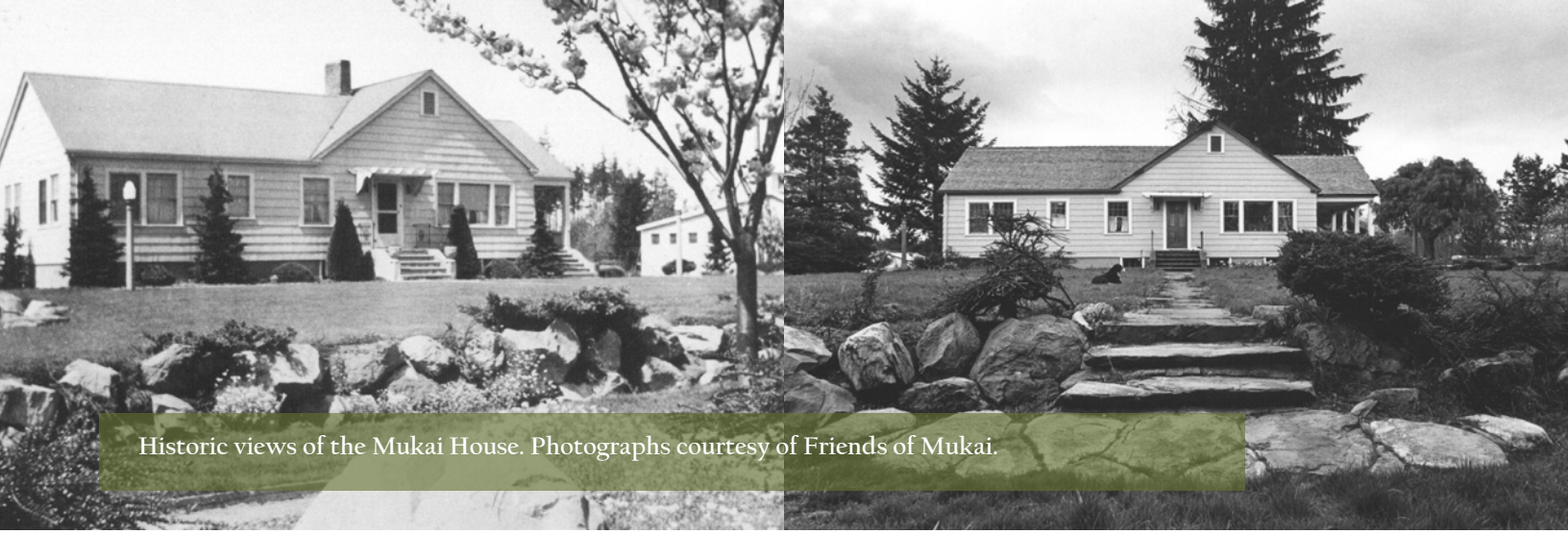
Significance

Established in 1926, the Mukai Farmstead and Garden contains the residence and gardens of the Mukai family as well as the business office and fruit processing plant for the family's agricultural operation, the Vashon Island Packing Company (VIPCo). Located on Vashon Island, just west of the Vashon commercial core, the Mukai Farmstead and Garden is situated along 107th Ave SW, south of SW Bank Rd.

The significance of the Mukai Farmstead and Garden stems from its historic context and design – the property illustrates the story of Japanese American settlement and berry production and processing in the Puget Sound, especially on Vashon Island, and provides a unique example of Japanese formal garden design.

Japanese immigrants came to the United States in increasing numbers throughout the late 19th and early 20th century, searching for their own economic opportunities while meeting the growing demand for cheap labor in the West. Prior to settling at this property, the Mukai family lived elsewhere on Vashon Island, relocating there from Seattle to pursue strawberry farming. At first, Denichiro (B. D.) Mukai worked for other growers, later leasing land across the road from the Mukai Farmstead and Garden. When his son Masahiro (Masa) was 16 years old, the family bought the land in his name, because of restrictions on land ownership by Japanese-born residents. Born on Vashon Island in 1911, Masa was a U. S. citizen. The family established the Mukai Cold Process Fruit Barreling Plant in 1926, which, surrounded by berry fields, served as the heart of their strawberry packing operation. Later renamed the Vashon Island Packing Company (VIPCo), the business added the small office building in 1946, after Masahiro had inherited the business. His father, B. D. Mukai, designed the house in the late 1920s while his second wife, Kuni, designed the formal gardens. The house's date of construction is 1928. All construction years are from property records with the King County Assessor.

The property is listed individually as a King County Landmark and is also on the Washington Heritage Register and National Register of Historic Places, all at the local level of significance. The property is listed under criterion A1 as a King County Landmark and under criteria A and C in the Washington Heritage Register and National Register of Historic Places. The property retains a high degree of integrity regarding its location, setting, materials, design, workmanship, feeling,



Historic views of the Mukai House. Photographs courtesy of Friends of Mukai.

and association. The listing criteria and level of integrity retained by the property are useful references for guiding stewardship and interpretation priorities.

From the National Register of Historic Places nomination (which was also utilized to list the property to the Washington Heritage Register), the Mukai property is listed for its significance under the following criteria:

- Criterion A (association with historic events or patterns of history), for its association with the history of Japanese American settlement in Washington State, as well as the development of the strawberry industry on Vashon Island in the Puget Sound in general; and
- Criterion C (embodiment of the distinctive characteristics of a type, period, or method of construction), for the landscape's representation of Japanese formal garden design.

In its King County Landmark nomination, the property is listed under Criterion A1, for similar reasons as Criterion A above, except the period of significance is longer, specifically 1907–1968 (as opposed to 1926 – 1942 for the National Register nomination). Former landmark nominations have ranked the shed/garage as non-contributing. However, this status should be reevaluated with consideration that the south portion of the structure may have originally served as multi-family housing for migrant fruit pickers at the Mukai farm and barreling plant, while the north portion historically served as storage for the farm equipment.[1]

After reviewing both nominations and conducting additional research, Artifacts recommends the period of significance for the Mukai Farmstead and Garden to be 1926–1942, as outlined in the National Register of Historic Places nomination.

Mukai Farmstead and Garden

The Mukai Farmstead and Garden was established in 1926, when the Mukai family purchased property just west of the Vashon commercial core to expand their strawberry farming operation. The family built a residence and numerous outbuildings related to their fruit production and processing. They also cultivated fields for berries, grew a small kitchen garden, and established a formal Japanese garden. The Mukai Farmstead and Garden is significant for several reasons: as a unique representation of Japanese American settlement, a successful berry production and processing facility in the Puget Sound, and a rare example of a female-designed Japanese formal garden. The Historic American Landscapes Survey (HALS) report articulates the uniqueness of the Mukai Farmstead and Garden, particularly the Japanese-style gardens designed by Kuni Mukai, stating: "They are a

1 This new assessment of the shed/garage's contributing status was derived from historic photographs from the Puget Sound Archives, Records of King County Assessor. Notably, one of the shed/garage from 1960 and several of the old bunkhouses.

1927 view of Mukai Marshall strawberry fields. Courtesy Washington State Historical Society.

vernacular composite of two cultures."[2] The collective importance and role of the gardens are outlined in the "Gardens" portion of the Preservation Plan.

Pre-Mukai Family (Pre-1926)

The history of the property prior to the Mukai family is not as clear. According to King County property records, it appears that the Mukai Family, through B.D.'s son Masa, purchased their first acreage from E.C. and Hester A. Thompson. Through U.S. Census research it appears that E.C. and Hester A. Thompson were likely an Ervin and Hester Thompson, born in ca. 1871 and ca. 1868, respectively. [3] It is unclear when the Thompsons purchased the property.

B.D. and grandson Milton Mukai. Courtesy Friends of Mukai.

2 HALS, page 1.
3 Year: 1920; Census Place: Cove, King, Washington; Roll: T625_1924; Page: 12A; Enumeration District: 26; Image: 604
4 The 1920 and 1930 years of the United States Federal Census list conflicting dates for B.D.'s immigration; the 1920 census lists 1902, while the 1930 census lists 1903. Ancestry.com. 1920 United States Federal Census [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2010.Year: 1920; Census Place: Vashon, King, Washington; Roll: T625_1924; Page: 2A; Enumeration District: 26; Image: 584
5 Sato's year of immigration is listed as 1908 in the 1920 United States Federal Census and, although no longer married at the time of the 1930 census, B.D. lists his age for his first marriage as 24. Thus, they were likely married in 1908 or 1909. Suni's death date was found through the Department of Health, Death Index, 1907-1960; 1965-2014, Washington State Archives, https://www.digitalarchives.wa.gov/Record/View/F2ED3AF4D0BDD58B3B391D4AF0D34C28.

1927 view of Mukai Marshall strawberry fields. Courtesy Washington State Historical Society.

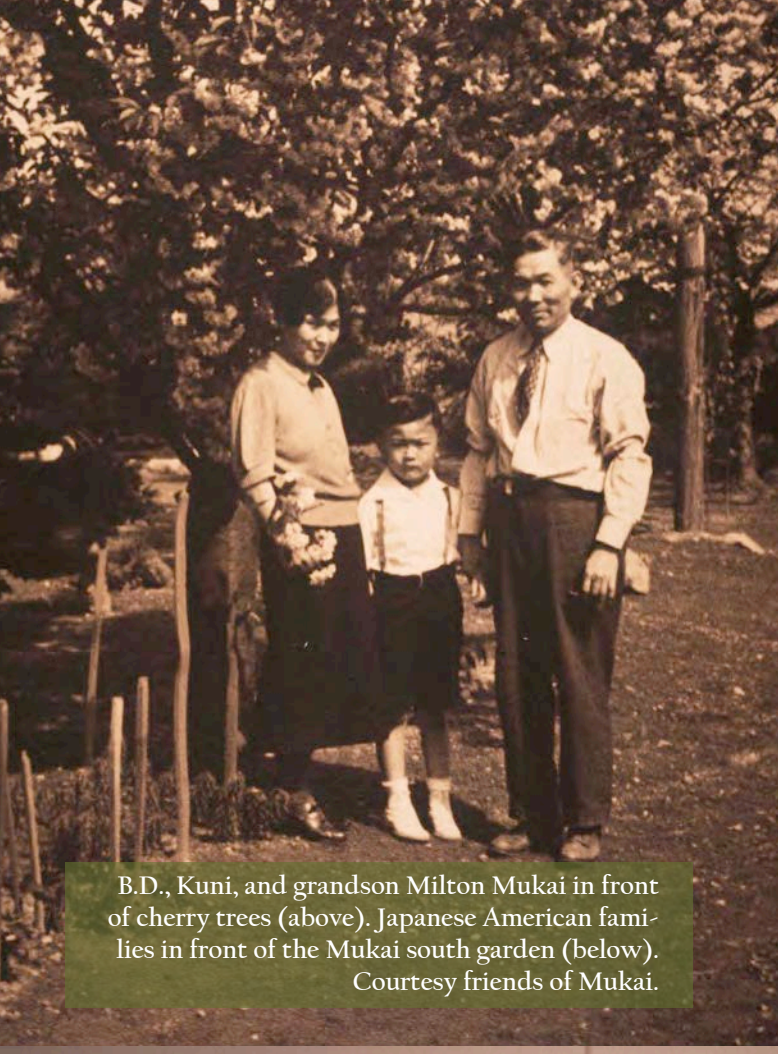
In 1922, the Mukai's began leasing a 60-acre farm owned by the Taylor brothers, immediately east of the later Mukai Farmstead and Garden. As they had at their previous locations, the Mukais began cultivating strawberries. They sold their berries at Pike Place Market in Seattle, with B.D. even leasing his own barge to ensure his berries reached the market first. Their land produced an overabundance of strawberries, which led B.D., along with Masa, to experiment with freezing and preserving the berries. They began their first barreling plant in 1924, the first family to do so on Vashon.[6] In 1925, B.D. remarried, wedding Sato's sister, Kuni Nakanishi (ca.1885-1957).

1926 – 1941: Prosperity

Already established in strawberry farming on Vashon Island, the ambitious Mukais sought new opportunities to grow their business. A significant shift came for the family when they purchased their own land. Laws in place to prevent Japanese immigrants from purchasing land meant that B.D.'s son, Masahiro, had to buy the land. At only 16 years of age, Masahiro is the name of record on the sale of the property, which the Mukais purchased from E.C. and Hester A. Thompson. The Mukai's purchased the property, which would soon house their family residence and strawberry processing operations, for $2,000.[7] Growing up, Masa was included as a partner in the family business. B.D. emphasized the importance of adopting American culture and speaking English, traits which helped B.D. succeed. Thus, unlike

6 Unless otherwise noted, this brief overview history of the Mukai family's early history was gleaned from "Mukai Cold Process Fruit Barreling Plant: Mukai and Son," National Register of Historic Places nomination, prepared in 1994 by Mary J. Matthews and Kent Sundberg. Much of the family history resulted from a 1993 oral history interview conducted between the authors and Masahiro Mukai.

7 The date on the record is listed as 1928. However, an oral history with Masa Mukai indicates that the Mukais purchased and began using the property in 1926.



B.D., Kuni, and grandson Milton Mukai in front of cherry trees (above). Japanese American families in front of the Mukai south garden (below). Courtesy friends of Mukai.

8 Byron Fish, "Vashon, Haven of Retired, Still Has Berries Galore," The Seattle Times, June 21, 1948, 15.
9 http://community.seattletimes.nwsource.com/archive/?date=19931119&slug=1732630

Mukai Farmstead and Garden buildings, including the barreling plant and bunkhouses. Courtesy Puget Sound Archives.

Japan bombed the U.S. naval installation at Pearl Harbor in Hawaii on December 7, 1941, the United States responded by declaring war, formally entering the conflict. The war, coupled with long-held racism, had severe ramifications on individuals of Japanese ancestry, particularly those living on the West Coast.

Berry Processing

The success of the Mukai family strawberry operation lay not only in the tenacity of its owners, but their embrace of progressive techniques. Not only did the Mukais experiment with new farming techniques but they also worked to fine tune the berry preserving process. Masa spent some time working at Seattle's Spokane Street Cold Storage to understand freezing techniques. Small fruit, like strawberries, do not have a long shelf life and an abundance of fresh fruit on the market would force farmers and distributors to drop their prices to sell their product. Farmers began preserving berries (e.g. canning and barreling) to extend their marketability. The introduction of freezing as a preservation method allowed the berries to retain much of their original color, flavor, and even scent. While at the Spokane Street Cold Storage facility, Masa experimented with various freezing methods, he added to the sugar preserving method already in use at the barreling plant. The Mukais incorporated freezing into their berry operation by packing the berries into wooden barrels, using a ratio of 2-1 of berries to sugar. These barrels, which contained 300 pounds of strawberries and 150 pounds of sugar, were then sent to the Spokane Street Cold Storage in Seattle to be frozen.[10]

1942 – 1945: WWII and Aftermath

The United States entered World War II following Japan's attack on Pearl Harbor on December 7, 1941. On February 20, 1942, President Franklin Roosevelt signed Executive Order 9906. This order had a profound impact on the Pacific Northwest during the war, particularly residents of Japanese ancestry. This order allowed the military to evacuate any persons from designated military areas who were deemed a national security threat. While this order did not directly name Japanese Americans, the federal government used the order to justify the forced relocation of individuals of Japanese ancestry, both Japanese-born immigrants (Issei) and second-generation American-born (Nisei), to retention centers. The order affected over 125,000 people of Japanese descent living on the West Coast.[11] Vashon Island Japanese, along with others up and down the West Coast, were affected by this order.

The evacuation to retention centers occurred in phases during spring and summer 1942, under the direction of 108 exclusion orders. The order for evacuation of a specific geographic area would be announced and then all people of Japanese ancestry would have a short period of time to leave the area. The Mukai family had a unique experience, though; they were given advance notice of the evacuation on Vashon Island and left before the official notice was given. Thus, the Mukais were able to more efficiently put their affairs in order and did not spend the war incarcerated in a retention center. The Mukai family settled in Dead Ox Flats, Idaho. The rest

10 Pamela J. Woodroffe, Vashon Island's Agricultural Roots: Tales of the Tilth as Told by Island Farmers (San Jose, CA: Writers Club Press, 2002), 74.

11 National Historic Landmarks Program, ed. Barbara Wyatt, "Japanese Americans in World War II" (Washington, D.C.: National Park Service, 2012), p. 3, https://www.nps.gov/nhl/learn/themes/JapaneseAmericansWWII.pdf.

of Vashon Island's Japanese residents were required to register by May 14, 1942, with evacuation following on May 16, 1942.[12]

The Mukais leased their property (or at least the fields and barreling operation) to Maurice Dunsford. Masa Mukai placed a notice in the April 2, 1942, Vashon Island News Record informing island residents that he had leased all his business (including property, equipment, packing plant, and good will) to Dunsford for a two-year period. Masa ended the announcement with a goodbye to the residents, "I want to take this means of saying goodbye to all of the friends I was unable to see in person."[13]

While the Mukai family was in Idaho, Dunsford ran the berry growing and barreling plant operations. His granddaughter, Marie Blichfeldt (nee Bailey, born 1940), remembers those years well. Although just a small child, she often accompanied her grandfather as he picked up berries from other farms around the island, even out on Maury Island. During the war years, women worked in the barreling plant, processing the berries for packing, and Native American workers were brought in to pick the berries. In addition to the strawberries, the barreling plant processed currants, gooseberries, strawberries, raspberries, boysenberries, and even pie cherries.[14]

An undated Seattle Post-Intelligencer article discusses the labor of the Native Americans brought in to pick the berries during this period. The article indicates Filipinos had previously been the labor force in the berry force, but had moved on to other work during the war. Dunsford, through the United States Employment Service, hired Native Americans from British Columbia to work the fields—picking berries and weeding.[15] The workers would be paid between 50 and 60 cents an hour, depending on their gender. The Dunsfords would drive up to Canada and pick up the workers, primarily from a town called Tillimuck.[16] The Native Americans, sometimes entire families, would come down during the summer and pick the berries. The bunkhouses on the Mukai property housed the workers.

Women like Barbara Steen (nee Crocker, born 1929) worked in the barreling plant during these years. The berries would arrive by truck and get dumped in a large hopper to be washed. Workers would transfer the berries to a conveyor belt where women would sort the berries, discarding those with imperfections. At the end of the conveyor belt stood Peter Fitchell, the barrel cooper. Fitchell would pack the berries into the barrels, adding sugar, then put the lid and last ring on the barrel.[17]

1946 – 1969: Transition

Masa and his family returned to Vashon Island in 1946, establishing a new home since their house was still leased. The same year, VIPCo. packed nearly $500,000 worth of strawberries, gooseberries, logans, currants,

12 Mike Sudduth, "1942 Vashon Island News-Record Summary," Vashon History, May 14, 1942, http://www.vashonhistory.com/Vashon%20History/Newspaper/newspaper_1942.htm (accessed December 20, 2016).
13 "Announcement," Vashon Island News Record, April 2, 1942, courtesy Marie Blichfeldt scrapbook.
14 Interview with Barbara Steen and Marie Blichfeldt, November 18, 2016.
15 Anne Stewart, Seattle-Post Intelligencer, article in Marie Blichfeldt's scrapbook.
16 Interview with Barbara Steen and Marie Blichfeldt, November 18, 2016.
17 Interview with Barbara Steen and Marie Blichfeldt, November 18, 2016.

Vashon Island Packing Co. Vashon Festival float. Courtesy Friends of Mukai.

boysen, and Olympia berries.[18] In 1947, VIPCo. handled about half the Vashon Island berry crop. [19]

The Mukais still owned VIPCo and the barreling plant and accompanying acreage, but they had returned to a changed market for berries. During the war, the berry market changed as wine-makers outbid many jam and jelly processors to purchase berries.[20] Masa began expanding his business ventures, shifting away from berry production and processing as his primary industry. He started a house construction business and even designed septic tank systems, small treatment plants, water mains, and pumping stations.[21] By 1950, it appears Masa sold the house and garden property.

By 1965, Masa's farming practices had shifted significantly. The profit margin had decreased dramatically for strawberries, so the strawberry fields were plowed over to make room for more currants. Masa contracted with a Portland-based processor to process the Mukai currants.[22] Masa had also shifted to using day-haul laborers—hiring primarily local workers rather than migrant workers.[23] This shift meant that Masa no longer needed to maintain a migrant work camp on his property.

Masa sold the barreling plant and strawberry operation in 1969 and sold the rest of the family's acreage off over the next decade. Masa retired in 1979.

Post-Mukai Family (1970-Present)

Linda Brush purchased the house and garden property in 1990. During Brush's ownership, significant efforts were made to document and preserve the unique history of the Mukai Farmstead and Garden. In 1993, the house, garden, and barreling plant were designated as a King County Landmark; the following year the property was placed on the National Register of Historic Places. In 1996, Linda Brush signed a preservation easement with the Department of Archaeology and Historic Preservation to preserve the historic, aesthetic, and cultural character of the Mukai Farmstead and Garden premises. Brush signed a preservation easement in 1998, this time with Island

18 Lucile McDonald, "Farming on Vashon," The Seattle Times, April 27, 1947: 5.
19 Lucile McDonald, "Farming on Vashon," The Seattle Times, April 27, 1947: 5.
20 Fish, "Vashon, Haven of Retired, Still Has Berries Galore."
21 Carey Quan Gelernter, "Honoring a Pioneer—Designation of Mukai Strawberry Plant as a King County Landmark Reminds Us of the Contributions of Early Japanese Immigrants," The Seattle Times, November 19, 1993, F1.
22 Larry Rumley, "County Farmland is Shrinking in Size," The Seattle Times, May 30, 1965, 3.
23 Larry Rumley, "Farm Labor – And 'Day Haul' Jobs," The Seattle Times, June 6, 1965, 5.

Landmarks to preserve the agricultural complex. Brush sold the house and garden to Island Landmarks in 2000.

Non-profit ownership of the Mukai house and garden set in motion years of effort to not only acquire the adjacent barreling plant but restore the property and make it a vibrant cultural and educational center on Vashon Island, first by Island Landmarks and then by the Friends of Mukai group.

Vashon Island Agriculture

An island located in Puget Sound, with ferry access to Seattle, Tacoma, and the Kitsap Peninsula, Vashon Island was largely agricultural from the late nineteenth century through the 1940s. The Island was particularly known for its strawberries, eggs, and flowers – and even continues to host an annual strawberry festival. Farmers struggled to get their goods to market in Seattle and Tacoma, having to rely on steamer and ferry services to ship their wares.

Vashon Island Settlement

The first inhabitants of Vashon Island – the S'Homamish – cultivated the land, harvesting roots and berries to supplement their marine harvest. The first Euro-American contact with the island occurred in 1792 with the Vancouver Expedition; George Vancouver named the island Vashon's Island. Charles Wilkes and his crew saw the island in 1842 with the U. S. Exploring Expedition, and named the island connected to Vashon by a narrow spit Maury Island. Despite this early contact, Euro-American settlement did not arrive on Vashon until 1865 when Mathew Bridges filed a claim. By the end of 1868, settlers had claimed over 2,849 acres, homesteading just shy of 746 acres.[24]

Pioneer farming on the island consisted primarily of subsistence farming, which lasted from the 1860s until roughly 1890. Other industries on the island included fishing, logging, brick making, and shingle making. Rough roads on the inland portions of the island encouraged settlement and industry along the shorelines, with several brick yards established at the southern end of the island at Quartermaster Harbor. Logging led the local economy, with loggers harvesting thousands of acres of timber for milling, some at local mills.[25] As the population grew, Mosquito Fleet steamers like the Lively and Salmon Sherman's Old Black Joe began making runs to the island.[26] Between 1880 and 1892, the population on Vashon increased from 100 to 930 residents. Occupations were largely limited to farmers or laborers (working in saw mills, logging camps, or fisheries) in 1880, but expanded to include carpenters, engineers, and ship carpenters, as well as laborers in the brick yards by 1890.[27] King County constructed roads on the island; a post office branch – Vashon Post Office – opened in 1883. Settlers established school districts, like the West Side School District (1882) and the Quartermaster School District (1883), and built school buildings. Town centers – Burton, Center, and Vashon Town – sprang up, supported by small commercial and social enterprises. Vashon Island continued to grow over the next few years, buoyed by thriving industries and agriculture.

The expansion of port cities like Tacoma and Seattle, followed by the nationwide economic depression of 1893, slowed the island's initial growth, particularly as its population dropped. In 1900, the U. S. Census indicated the population had only grown by 14 people in the previous decade (from 930 to 944).[28] But regardless of the financial hardships, agriculture activities persisted on the island, with Vashon farmers producing strawberries, raspberries, currants, gooseberries, and cherries. Strawberries, perfect for the climate and soil of Vashon, became the popular crop on the island. Despite the spread of fruit crops on the island, farmers often could not support their families on their fruit harvest, supplementing their

24 Bruce Haulman, PhD, and Alice Larson, PhD, eds., "Settlement: 1865-1890," Vashon History, http://www.vashonhistory.com/Vashon%20History/Timeline/settlement.htm (accessed May 5, 2015).
25 Julie Kohler (King County Historic Preservation Officer), "Vashon Hardware Store," National Register of Historic Places nomination, 8/10/2000, Smithsonian Number 45K100649, Section 8, Page 2.
26 Haulman and Larson, "Settlement: 1865-1890," Vashon History.
27 1892 Vashon-Maury Island, Washington Territorial Census. 1880 Vashon-Maury Island, Federal Census.
28 1900 Vashon-Maury Island, Federal Census.

income with "egg money" from raising poultry.[29] Greenhouse firms became popular, with six formed by 1897 – W. J. Gordon, P. C. Nye, H. O. Fuller, C. Griswold, Covey Brothers, and H. Harrington.[30]

Agriculture steadily became a dominant industry on the island; fruit growers founded the Vashon Horticultural Society in 1900, followed by the Vashon Island Fruit Growers. The establishment of Pike Place Public Market in downtown Seattle in 1907 created a new market for island farmers to sell their produce. The Pike Place Public Market opened on August 17, 1907, and provided direct interaction between farmers and consumers, cutting out the middleman to improve prices for consumers while generating greater revenue for farmers. Shipping crops off-island required farmers to rely heavily on the steamers, which had routes from various landings around the island to and from Tacoma, Seattle, and the Kitsap Peninsula.

Strawberries and Vashon Island

Well adapted to the cultivation of strawberries, Vashon Island became a prime producer of the fruit. Of the numerous crops grown on Vashon, strawberries are particularly well-suited for the island's sandy loamy soils.[31] John Cage Gorsuch likely started the first commercial strawberry operation on the island, with Gorsuch planting strawberries on his property in the early 1890s. Gorsuch harvested 6,120 pounds of strawberries from each of his 3 acres in 1896.[32] Other farmers on the island followed suite and began growing strawberries themselves. By 1907, advertisements appeared in the Seattle Daily Times with the Vashon Island Fruit Growers' Association needing help from several hundred berry pickers for strawberry, raspberry, and cherry crops.[33] In 1912, the Vashon-Maury Federation of Clubs sponsored the first Vashon Strawberry Festival.

Vashon soon became known for their strawberries, predominantly the Marshall variety. The Marshall Strawberry was known for its deep, dark red color and bold flavor. James Beard, famed American foodie, even declared the Marshall the most delicious strawberry every grown. Their high sugar content, while delicious, made them difficult to harvest, ship, and store. Advances in refrigeration and shipping allowed berry production – strawberries, and the Marshalls, in particular – to flourish. The Vashon Island and Lake Washington Berry Associations shipped the first railcar load of strawberries from Seattle to Butte, Montana, in June 1904. Shipping the berries out enlarged the market for growers while also allowing for surplus berries to be sold rather than going to waste. Processing the strawberries, or "sugaring" them, allowed the berries to ship even further and to be used in preserves, pies, and ice creams.

29 Roland Carey, Isle of the Sea Breezers (Seattle: Alderbrook Publishing Company, 1976), 35.
30 http://www.vashonhistory.com/Vashon%20History/Timeline/boom.htm
31 Bruce Haulman and Terry Donnelly, "Strawberry Farming on Vashon," 1.
32 Ibid.
33 "Berry Pickers Wanted," The Seattle Daily Times, May 3, 1907, 18.

Japanese on Vashon Island

Vashon Island's first Japanese immigrants arrived in the early years of the twentieth century. As more Japanese arrived and families grew, they became a vital part of the island's ethnically diverse agricultural community.[34] In order to understand the story of the Japanese on Vashon Island, the overall pattern of Japanese immigration to the West Coast, and specifically the Puget Sound region, must be outlined first.

Japanese Immigration to the U.S.

Japanese immigrants moved to the United States in increasing numbers throughout the late 19th and early 20th century, searching for their own economic opportunities while meeting the growing demand for cheap labor in the West.

In 1853, Commodore Matthew Perry arrived in Edo Bay, effectively ending the 200-year period of Japanese isolation from the West. The first wave of Japanese or dekasegi immigration began when Japanese laborers traveled to Hawaii and Guam looking for work. According to historian Yuji Ichioka, "Dekasegi designates the practice of Japanese laborers leaving their native place temporarily to work elsewhere."[35] Initially this designation of dekaseginin (i.e. Japanese workers who left home for work) applied to Japanese traveling within Japan, but was extended to international travel in 1868 with the dawn of the Meiji era. The Meiji Restoration (1868-1912) began Japan's shift from a feudal to modern society and ushered in significant social and economic changes within Japan, including the institution of universal public education and a drive for industrialization.[36]

After poor treatment of Japanese laborers on Hawaiian plantations, Japan legalized contract work through the Immigration Convention of 1886, which resulted in a large influx of workers arriving in the United States, from both Hawaii and Japan. Japanese dekasegi immigrating to the U. S. mainland arrived in California and the Pacific Northwest, many as student-laborers (dekasegi-shosei). The social and economic changes in Japan had a significant impact on the lower class, which bore the brunt of new national taxes and a dramatic decrease in the price of rice.[37] Young Japanese men, particularly from rural areas, sought opportunity in the United States, hoping to learn English and return home with wealth. These students and laborers made up the first phase of immigration to the U. S., which lasted roughly from 1886 to 1907.

The second period of immigration began in 1908 after Japan voluntarily limited immigration to the United States. This informal agreement, known as the Gentlemen's Agreement, was spurred on by a 1906 decision by the San Francisco Board of Education decision to place all Asian children in a segregated school. This decision angered the Japanese government, leading President Theodore Roosevelt to intervene to preserve diplomatic relations. With the Gentleman's Agreement, Japan agreed to deny passports to laborers and Roosevelt convinced the Board of Education to allow Japanese children to attend general public schools.[38] This agreement initially slowed the flood of Japanese into the country, but immigration picked up again as the agreement did not prevent Japanese already in the United States from sending home for their wives. However, the early Japanese laborers who arrived in the States were primarily single men and did not have wives waiting in Japan instead relying on the legal Japanese custom of marriage by proxy or "picture brides."[39]

Naturalization & Exclusion Laws

Throughout U. S. history, Congress has passed a number of immigration and naturalization laws, many of which were xenophobic and, according to the U. S. Department of State's Office of the Historian, intended to "preserve the ideal of American homogeneity."[40] Immigrants arriving from non-European nations, including the Japanese, experienced significant discrimination, both institutional

34 "Japanese Presence Project," Vashon History, http://www.vashonhistory.com/japanese_presence_main_2.html (accessed December 20, 2016).
35 Yuji Ichioka, The Issei: The World of the First Generation Japanese Immigrants, 1885-1924 (New York: The Free Press, 1988), 3.
36 David A. Takami, Divided Destiny: A History of Japanese Americans in Seattle (Seattle: University of Washington Press, 1998), 15.
37 Takami, 15.
38 David A. Neiwert, Strawberry Days: How Internment Destroyed a Japanese American Community (New York: Palgrave Macmillan, 2005),
39 Neiwert, 27.

and social. Japanese immigrants, who largely settled in California and the Pacific Northwest, were prevented from shopping and living in certain areas. For Japanese living in cities, this lead to the establishment of Japan towns or Nihonmachis.

With citizenship and naturalization not expressly stated in the U. S. Constitution, Congress passed the first naturalization law in 1790. The 1790 Naturalization Act established the requirements for citizenship for immigrants (i.e. aliens), limiting citizenship to free white persons and individuals who had lived "within the limits and under the jurisdiction of the United States for a term of two years." Citizenship was further clarified with the ratification of the 14th Amendment in 1868, which stated, "All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside."[41] The U. S. Government then passed the Naturalization Act of 1870 to expand citizenship to both whites and African-Americans.[42] Despite this step forward, Congress passed two restrictive immigrant laws, the Page Act of 1875 and the Chinese Exclusion Act of 1882. The Page Act restricted immigration of indentured Chinese, Japanese, and other Asian laborers and continued to deny citizenship to Japanese and other Asian immigrants to curb the influx of cheap, contract labor. [43] The Chinese Exclusion Act of 1882 placed a 10-year restriction on immigration of Chinese laborers and excluded Chinese from U. S. citizenship; the act was renewed twice more, in 1892 (the Geary Act) and 1902.

Despite the prohibition on Chinese immigration, great demand for cheap labor still existed in the booming lumber and railroad industries, though, allowing Japanese workers to step in. The Japanese population in the United States grew significantly between 1890 and 1910, from 2,039 to 72,175, respectively.[44] As the Japanese population grew, so did the resentment of the white population, which viewed the Japanese, like the Chinese before them, as a threat to their own economic opportunity. Individual states began to pass their own exclusion laws; California passed the first Alien Land Act in 1913, making it illegal for Issei (first generation Japanese immigrants) to own land. Other states followed, introducing their own unique legislation. The U.S. continued its restrictions on immigration in the early twentieth century, enacting the Immigration Act of 1917, which prevented immigration from most of Asia, followed by the Immigration Act of 1924, which further restricted immigrant from Asia, including foreign-born wives.

Japanese in the Puget Sound & Western Washington

Booming agricultural, timber, mining and railroad industries drew Japanese dekasegi to the Pacific Northwest. These industries created a high demand for labor and the passing of the Chinese Exclusion Act of 1882 halting Chinese immigration set the stage for Japanese laborers to meet the need. Labor contracting businesses flourished, with new immigrants relying on fellow countrymen labor contractors to find them jobs. Two companies of note in western Washington were the Oriental Trading Company (founded in 1898 by Takahashi Tetsuo and Yamaoka Ototaka) of Seattle and the Tacoma Construction and Maintenance Company (founded in April 1898 by William H. Remington and Kumamota Hifumi).[45]

Japanese Farmers in the Pacific Northwest

When Japanese immigrants arrived in the Northwest, predominately through port cities like Tacoma and Seattle, they quickly found jobs with railroad line crews, sawmills, canneries, and farms. The earliest immigrants sought to make their fortune in the United States and return home to Japan. While some of the early migrants were from wealthier families, Japanese immigrants increasingly came from the peasant class. Many of the early Japanese workers arriving in the U.S. emigrated from rural areas in the Hiroshima, Yamaguchi, and Okayama regions.[46] Thus, many Japanese naturally settled into agricultural work in the fertile farmland surrounding the Puget Sound, such as the White and Puyallup River Valleys. This first generation, the Issei, set down roots, sending home for wives and starting families. Their children, the Nisei generation, were American-born and, therefore, citizens.

Japanese farmers started as contract farmers, cultivat-

41 Article XIV, Section 1. http://memory.loc.gov/cgi-bin/ampage?collId=llsl&fileName=014/llsl014.db&recNum=389
42 http://ocp.hul.harvard.edu/immigration/timeline.html
43 http://www.densho.org/sitesofshame/timeline.xml
44 Takami, 23.
45 Ichioka, 57-58.
46 Takami, 17.

ing land for a landowner for a set wage. Many farmers then moved onto shared tenancy, cultivating land for a landowner for a share of the profits. As Japanese immigrants became more established and successful, they could enter into cash-lease agreements with landowners which provided a sense of independence. Gaining success with their leased farms, many Japanese farmers sought to purchase their own land. By 1905, 48 Japanese farmers ran 39 individual farms in the area between Seattle and Tacoma.[47] These areas included Bellevue, the White River Valley, Puyallup Valley, Bainbridge Island, and Vashon Island.

In 1910, the U. S. Census began gathering information on the color, race, and nativity of farmers. For the Thirteenth Census in 1910, the Agriculture Report identified 316 Japanese farmers in Washington State – the second largest minority group.[48] Unfortunately, the report does not further categorize the nativity of farmers by county, instead roughly dividing them by "native white," "foreign-born white," and "Negro and other nonwhite." The largest concentrations of nonwhite farmers in the state in 1910 were in King, Okanogan, Pierce, and Stevens counties.[49]

In 1920, the number of Japanese farms in Washington more than doubled from 1910, increasing to 699 farms.[50] The vast majority of them were still tenant farmers, with only 27 of the 699 farms owned by Japanese.[51] In subsequent years, the census did not categorize owners by race or country of origin in the same way, so the 1920 Agriculture Report provides a brief window into the growing number of Japanese farmers in the Puget Sound. Threatened by the growth of the Japanese community, anti-Japanese sentiment led to the passage of Washington's Alien Land Law in 1921, preventing the leasing or renting of land or renewing of old leases to Asians.

Japanese on Vashon Island

The first Japanese recorded on Vashon Island were males, who were identified as farm laborers and servants in the 1900 U.S. Census. Only seven men were recorded and they ranged in age from 14 to 30. By the 1910 census, nearly 100 Japanese were recorded as residents of Vashon Island. While they were still predominately adult men, a few women and children had arrived on the island. Farming, sometimes even specified as fruit farming, dominated the occupations listed by these residents. Japanese families continued to grow as children were born on the island. In 1917, the Vashon Japanese Association was formed. By the 1930 census it was a relatively even split between Vashon Island residents of Japanese who had been born in Japan and those who had been born in Washington.[52] Japanese American citizens living on Vashon organized the Vashon Island Progressive Citizens League in 1930.

During WWII, those Vashon Island residents of Japanese descent were evacuated inland. They were forced to leave behind most of their belongings and even leave their property in the care of neighbors, unsure when they would be able to return. Vashon Island's Japanese residents were required to register by May 14, 1942, with evacuation following on May 16, 1942.[53] The island's Japanese residents, 126 in total, left Vashon Island bound for Pinedale, California.[54] Once at the Pinedale Processing Center many were sent on to Tule Lake Relocation Center in California and then the Minidoka War Relocation Center in Idaho.

47 Stan Flewelling, Shirakawa: Stories from a Pacific Northwest Japanese American Community (Auburn, WA: White River Valley Museum, 2002), 32.
48 Thirteenth Census, Agriculture – Washington, 830.
49 Thirteenth Census, Agriculture – Washington, 840-843.
50 Fourteenth Census, Agriculture Report, 810. http://www.agcensus.usda.gov/Publications/Historical_Publications/1920/Farm_Statistics_By_Race_Nativity_Sex.pdf
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53 Mike Sudduth, "1942 Vashon Island News-Record Summary," Vashon History, May 14, 1942, http://www.vashonhistory.com/Vashon%20History/Newspaaper/newspaper_1942.htm (accessed December 20, 2016).
54 Mike Sudduth, "1942 Vashon Island News-Record Summary," Vashon History, May 21, 1942, http://www.vashonhistory.com/Vashon%20History/Newspaaper/newspaper_1942.htm (accessed December 20, 2016).

After WWII ended, only one-third of the families who left the island returned. Many of those that returned were decorated military veterans who served the United States during WWII. Since the end of WWII, new Japanese residents have arrived on Vashon with their own experiences and stories.

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B.D. Mukai and children at a farm. Courtesy Friends of Mukai.

B. Uses & Programming

The following uses and programming guidance developed through a series of workshops led by Judith Clegg with the Friends of Mukai board. James Cary of Cardinal Architecture, Mary Thompson and Spencer Howard of Artifacts Consulting, Inc. provided and worked through uses and programming with the Board.

The baseline question going into these workshops was if the property would revert back to its original use as a private single family residence and industrial agricultural processing facility, and if not, what would compatible public new uses look like and how would compatibility be measured.

This was a critical first step since a change of occupancy and use for the property and its resources have significant building and land use code implications. Knowing how a building will be used is essential to knowing what building codes apply and what level of work is needed to bring the building into compliance.

This process resulted in a vision, mission, values, and objectives identified uses for the property and resources, and a site programming plan. Refer to Section 3.0 Direction for the Vision, Mission, Values, and Objectives developed through this process. The uses identified through this process follow below, along with background on the comparative examples that were studied.

The process of programming consists of fitting uses to the overall property and resources. The National Advisory Council on Historic Preservation frames this process as two questions:

- Will the resource be used as it was historically or will it be given a new use?
- What are the elements of its original use and what modern uses align with these patterns?

The closer a new use can match a historic use, generally, the less extensive the interior and exterior modifications will be that are necessary to adapt to the new use and the greater the educational and interpretation value of the use will be. Aligning new uses to historic use patterns draws on a resource's significance and historic levels of public visibility to help inform where modern uses may need to adapt to historic spaces and where the historic spaces can more easily adapt to modern uses.

Historically, the property functioned as a farm site with a single family residence, surrounding agricultural fields and outlying agricultural support buildings, but with the added complexity the Japanese garden and associated cultural values as well as the agricultural industrial processing uses in the barreling plant.

The following table lists the uses by resource identified through the workshop process.

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TABLE B.1: RESOURCE USES

Resource:	House	Japanese Garden	Shed	Barreling Plant	Office	Agricultural fields	Woods	Site
Uses identified for each resource	▪ Friends of Mukai Meetings & Events ▪ Japanese Heritage Events ▪ Strawberry Festival ▪ Museum ▪ Lectures ▪ Library or Resources Center ▪ School Visits ▪ Fundraising ▪ Event Space ▪ Garden Club ▪ Fruit Club ▪ Fundraising	▪ Japanese Heritage Events ▪ Cherry Blossom Events ▪ School Visits ▪ Garden Clubs ▪ Garden Tours ▪ Fundraising	▪ Salvage	▪ Friends of Mukai Meetings & Events ▪ Japanese Heritage Events ▪ Saturday Market, Seasonal or Off-Season Market Museum ▪ Lectures ▪ School Visits ▪ Winery / Brewery / Distillery ▪ Fundraising ▪ Fruit Club ▪ Performance ▪ Gift Shop ▪ Event Space	▪ Office space ▪ Archive and storage space ▪ Comfort station/restroom	▪ Heritage Garden & Farm ▪ School Visits ▪ Garden Club ▪ Fruit Club ▪ Fruit & Vegetable Farm & Garden ▪ Performance ▪ Trail Walking ▪ Fundraising ▪ Garden Tours ▪ Event Space	▪ Trail Walking ▪ Site interpretive and educational activities	▪ Exhibit space ▪ Gift shop ▪ Interpretive kiosk for agricultural functions

The following table identifies the resources, the levels of use anticipated over the three work phases, and the level of work necessary to support the uses. This table helps to illustrate the timing by which uses identified for the resources could be activated based on the necessary work being completed for each resource to enable the use.

TABLE B.2: LEVELS OF USE

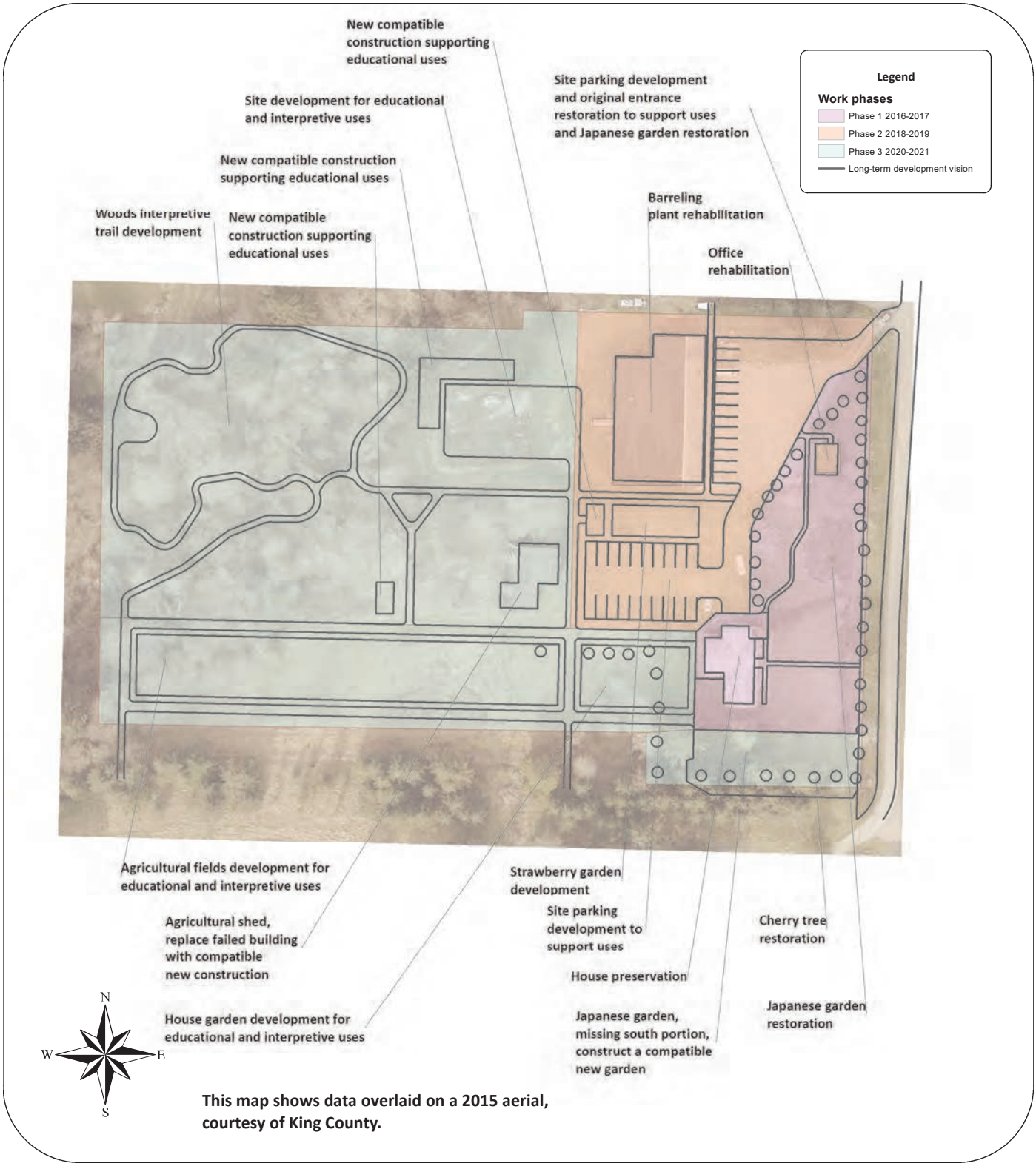
Resource	Phase 1 2016-2017		Phase 2 2018-2019		Phase 3 2020-2021	
Goal	Continue limited public use of the Japanese garden, house and site while implementing planning and upgrades to expand the level of public use in phase 2.		Undertake major restoration and site activation projects that build off planning and repair work in the first phase.		Undertake expansion of facilities related to public use and education and construction of the south garden.	
	Use	Work	Use	Work	Use	Work
Farm Land	No use	Maintain	Limited public use	Crop identification and cultivation	Public use	Maintain
Agricultural shed	No use	Salvage, vehicle removal	No use	No action	Redevelop site	New facility construction supporting public functions
Barreling plant	No use	Maintain, planning, and identify tenant	No use	Design development and rehabilitation	Public use	Maintain
House	FOM use, limited public use	Planning, collections, seismic, asbestos abatement, heating, electrical upgrades, chimney repairs	Public use	Universal access, restoration and repair work, energy upgrades, and window restoration	Public use	Painting, storm windows
House garden	No use	Maintain	Limited public use	Crop identification and cultivation	Public use	Maintain
Japanese garden	Limited public use	Cherry regeneration, lighting, north garden planting	Public use	North garden water feature restoration	Public use	Maintain, South garden design and construction

Resource	Phase 1 2016-2017		Phase 2 2018-2019		Phase 3 2020-2021	
Office	No use	Maintain, planning, and identify tenant	No use	Design development and rehabilitation	Public use	Maintain
Site	Limited public use	Site drainage correction, sidewalk repair	Limited public use	Cherry tree regeneration, parking construction, strawberry garden, interpretation plan	Public use	New facility construction supporting public functions
Woods	No use	Maintain	No use	Tree and plant identification	Public use	Trail and interpretive design and construction
Funding	Business plan development, fundraising, and grant writing		Fundraising and grant writing		Fundraising and grant writing	

The following drawings show the project planning area, past development, existing conditions, and two development options for the property.

Minimum projects site plan provides a base level of development within the property to support the proposed uses.

Future opportunities site plan shows a full level of development within the property to support the proposed uses. The treatment recommendations through phase 3 support this full build out.



This map shows data overlaid on a 2015 aerial, courtesy of King County.

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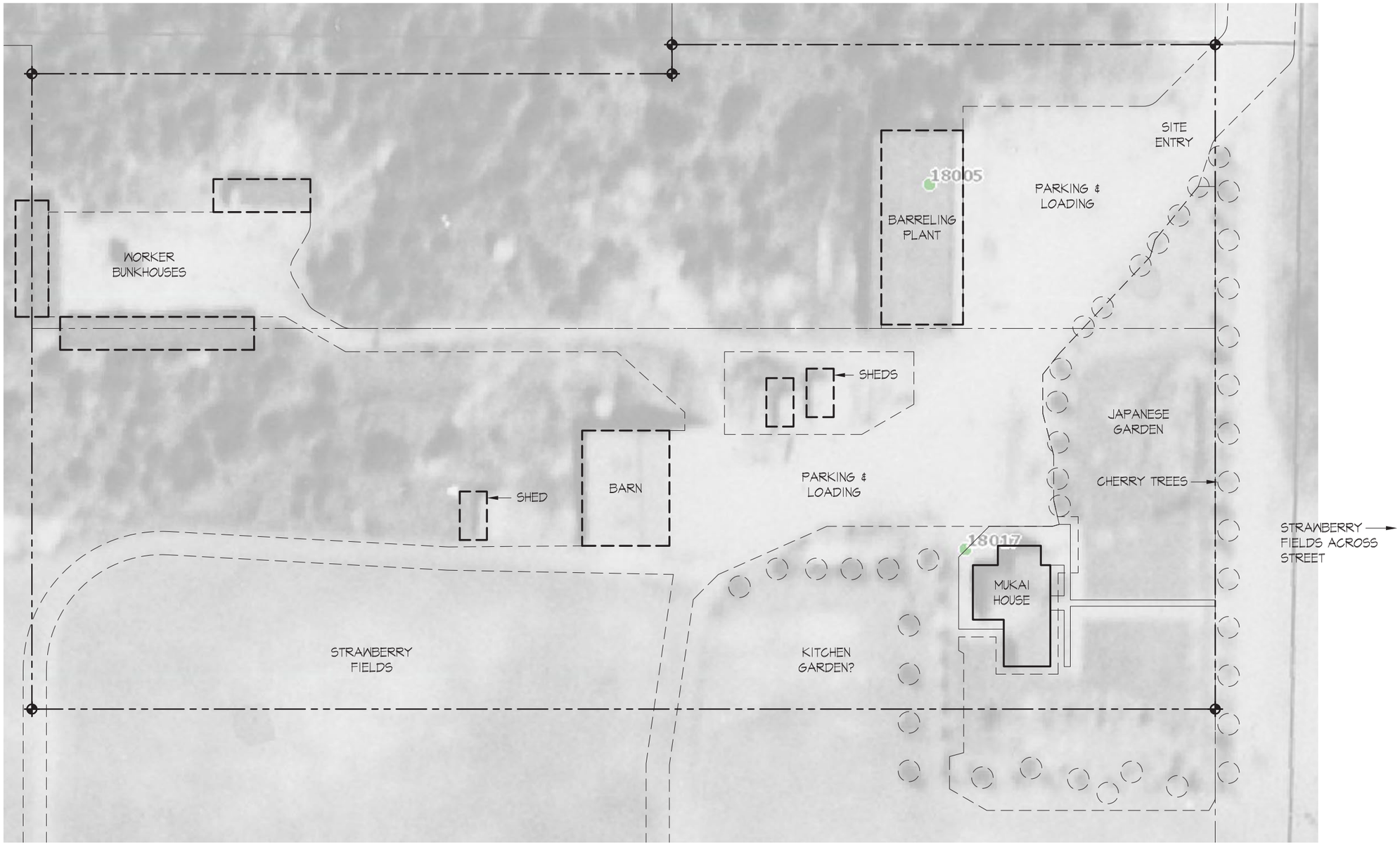

IMAGE UNDERLAY: 1933 AERIAL
KING COUNTY MAP VAULT

1933 HISTORIC SITE PLAN

SCALE: 1" = 50'-0"

CARDINAL ARCHITECTURE PC
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SEATTLE WA 98101
206.624.2365

MUKAI HOUSE, GARDEN & BARRELING PLANT PROJECT PLANNING
18017 107TH AVE SW, VASHON ISLAND, WA

31 OCTOBER 2016

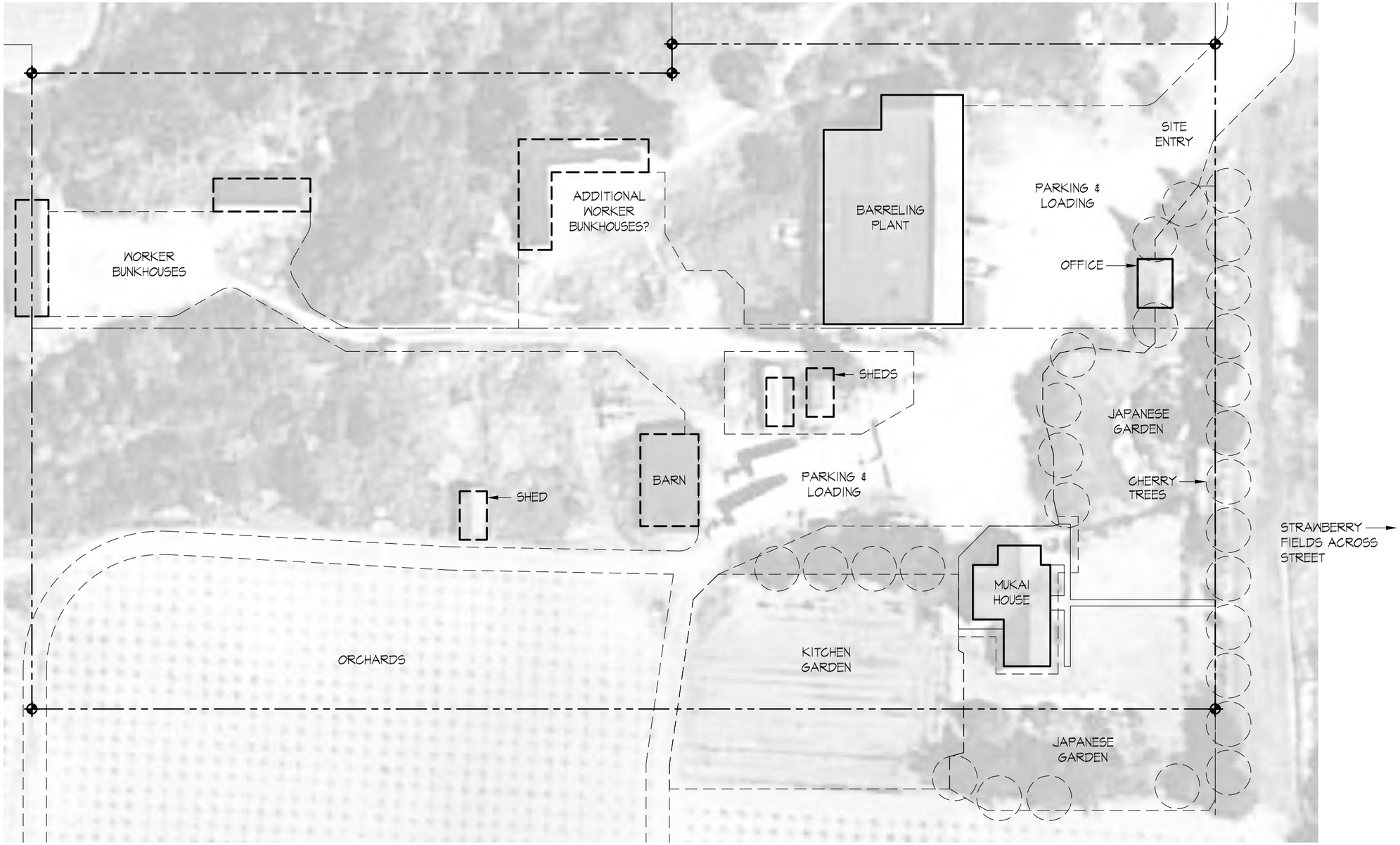

IMAGE UNDERLAY: 1959 AERIAL
KING COUNTY MAP VAULT

1959 HISTORIC SITE PLAN

SCALE: 1" = 50'-0"

N

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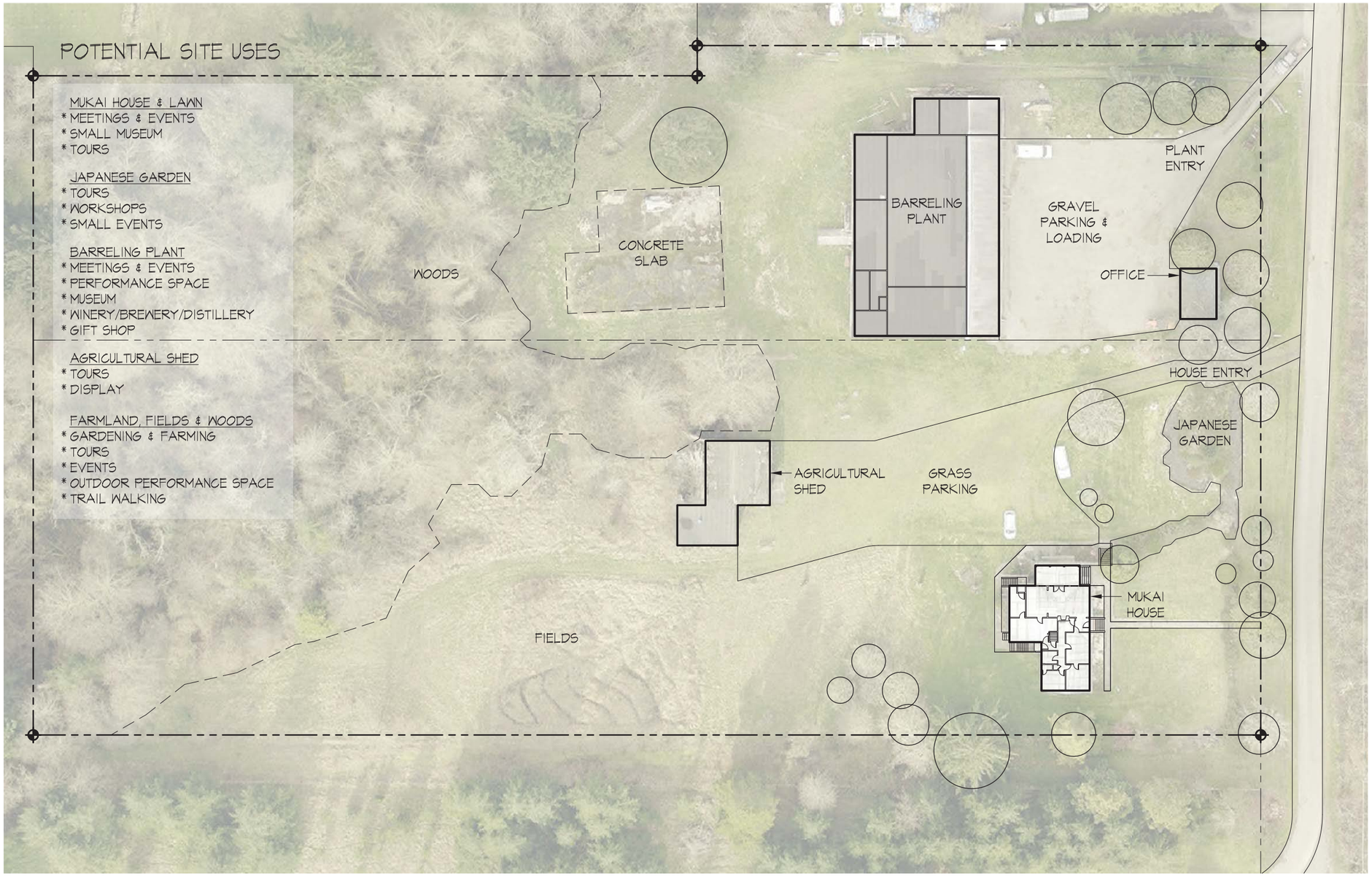

EXISTING SITE PLAN -
POTENTIAL SITE USES

SCALE: 1" = 50'-0"

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MINIMUM PROJECTS REQUIRED FOR PROPOSED USES

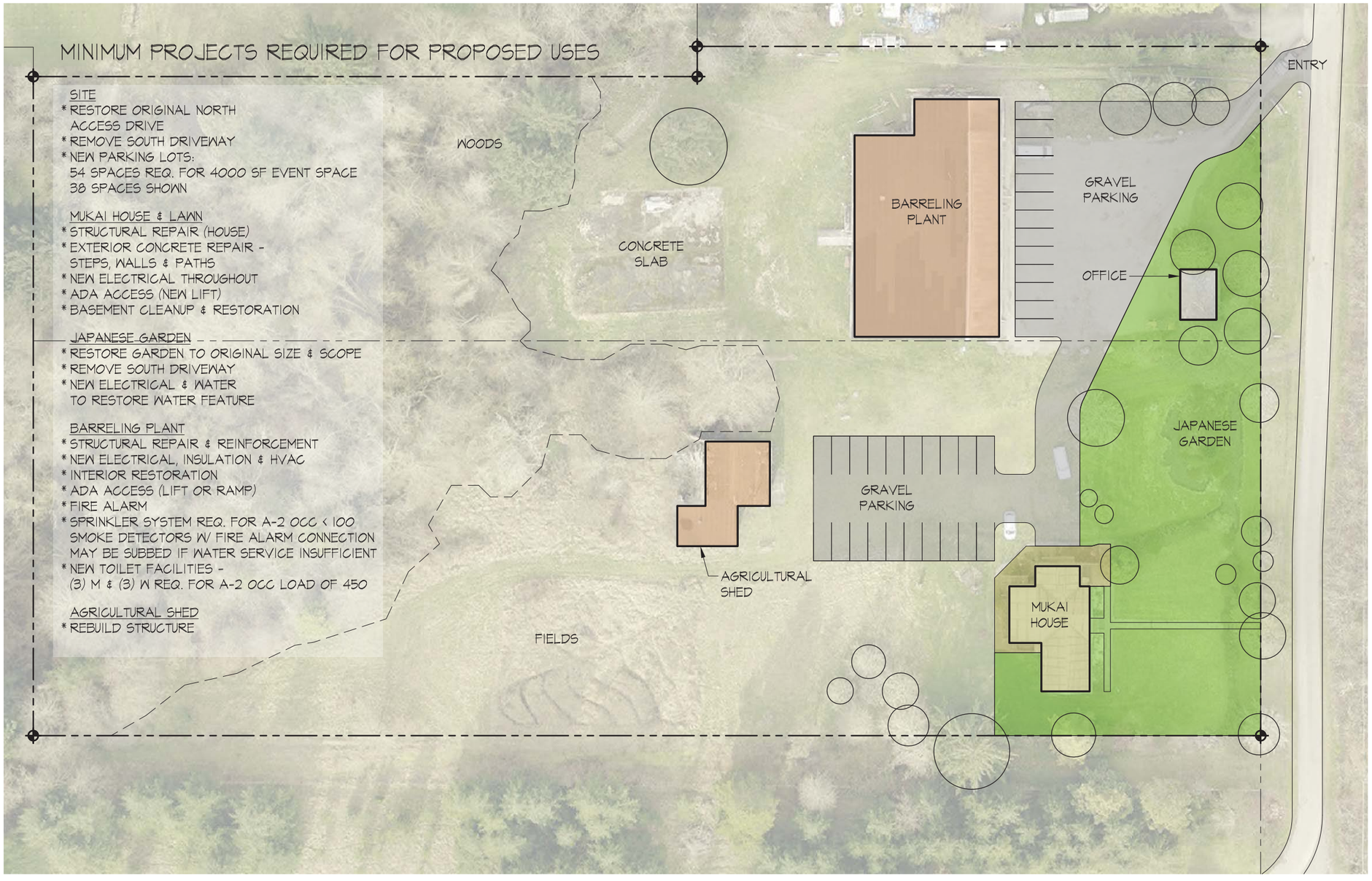
SITE
* RESTORE ORIGINAL NORTH ACCESS DRIVE
* REMOVE SOUTH DRIVEWAY
* NEW PARKING LOTS:
  54 SPACES REQ. FOR 4000 SF EVENT SPACE
  38 SPACES SHOWN

MUKAI HOUSE & LAWN
* STRUCTURAL REPAIR (HOUSE)
* EXTERIOR CONCRETE REPAIR - STEPS, WALLS & PATHS
* NEW ELECTRICAL THROUGHOUT
* ADA ACCESS (NEW LIFT)
* BASEMENT CLEANUP & RESTORATION

JAPANESE GARDEN
* RESTORE GARDEN TO ORIGINAL SIZE & SCOPE
* REMOVE SOUTH DRIVEWAY
* NEW ELECTRICAL & WATER TO RESTORE WATER FEATURE

BARRELING PLANT
* STRUCTURAL REPAIR & REINFORCEMENT
* NEW ELECTRICAL, INSULATION & HVAC
* INTERIOR RESTORATION
* ADA ACCESS (LIFT OR RAMP)
* FIRE ALARM
* SPRINKLER SYSTEM REQ. FOR A-2 OCC < 100 SMOKE DETECTORS W/ FIRE ALARM CONNECTION MAY BE SUBBED IF WATER SERVICE INSUFFICIENT
* NEW TOILET FACILITIES - (3) M & (3) W REQ. FOR A-2 OCC LOAD OF 450

AGRICULTURAL SHED
* REBUILD STRUCTURE



MINIMUM PROJECTS SITE PLAN
SCALE: 1" = 50'-0"

N

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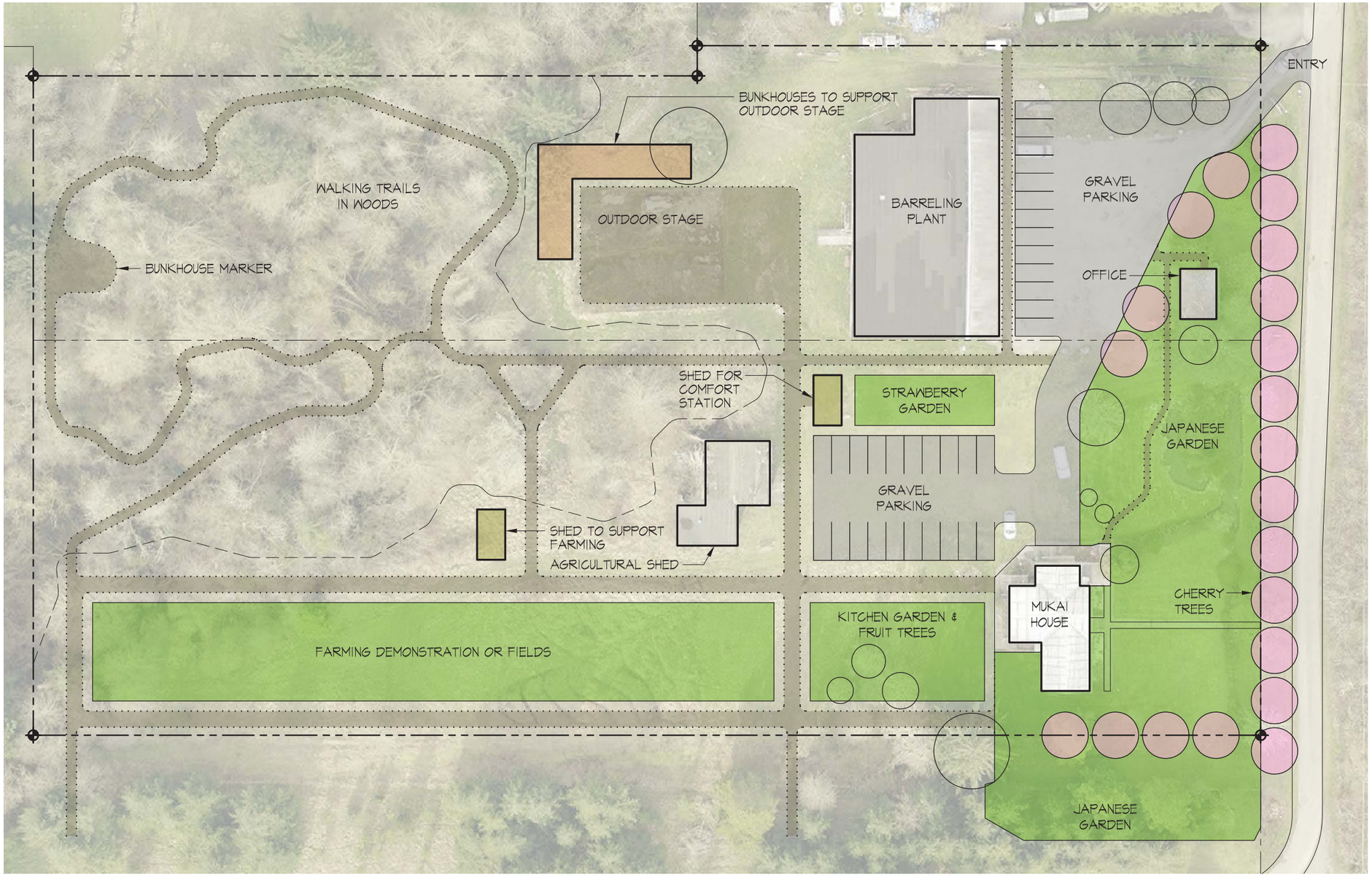

FUTURE OPPORTUNITIES SITE PLAN

SCALE: 1" = 50'-0"

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Comparative Use Examples

As part of the uses workshops, Artifacts Consulting, Inc. conducted a national search of comparable property types that matched up with the resources and educational direction of the Mukai Farmstead. The following four examples were selected to illustrate how other groups have approached uses and business development.

- Bloedel Reserve, Bainbridge Island, WA: selected due to the garden and cultural landscape comparison.
- Mary Olson Farm, Auburn, WA: selected due to the similar scale and working farmstead comparison.
- Belle Meade Plantation, Nashville, TN: selected due to the similar scale, similar resources, and the role of a commercial tenant.
- Cooper-Molera Adobe, Monterey, CA: selected due to the similar scale, similar resources, and the role of a commercial tenant.

In addition, two comparative Japanese Gardens are included for reference and consideration as future efforts are planned for the Mukai Japanese Garden.

The following table provides an overview of the key statistics for each of the uses. Narrative descriptions for each follow the table. Observations regarding

- Revenue source differences were notable. Of particular note was Belle Meade with 77 percent of their revenue coming from programs, events, and retail sales. A similar level is anticipated for Cooper-Molera. In contrast the other two sites relied on contributions, investments, and government grants for most their funding.
- Programs represent the bulk of the operating expenses for all examples. Pacing program growth with revenue sources will be a key consideration in the gradual activation of the property.

TABLE B.3: COMPARABLE USE PROFILES

	Bloedel Reserve 7571 NE Dolphin Drive Bainbridge Island, WA	Mary Olson Farm 28728 Green River Rd SE Auburn, WA	Belle Meade Plantation 110 Leake Avenue Nashville, TN	Cooper-Molera Adobe 525 Polk Street Monterey, CA
Date Established	1988	Acquired 1994 Restoration completed 2011	1953	Acquired 1968 Restoration in 1980's Re-opens 2017
Owner	Bloedel Reserve, managed by University of WA as public garden	City of Auburn, leased to and managed by White River Valley Museum	Association for the Preservation of Tennessee Antiquities (APTA)	National Trust for Historic Preservation, managed by CA State Parks until 2015
Governance Model	501(c)3	Publicly owned, managed by 501(c)3	501(c)3 13 chapters administer 14 historic sites	501(c)3 Shared Use agreement with Foothill Partners

	Bloedel Reserve 7571 NE Dolphin Drive Bainbridge Island, WA	Mary Olson Farm 28728 Green River Rd SE Auburn, WA	Belle Meade Plantation 110 Leake Avenue Nashville, TN	Cooper-Molera Adobe 525 Polk Street Monterey, CA
Mission	To enrich people's lives through a premier public garden of natural and designed Pacific Northwest landscapes	Through preservation of the buildings and historic features, and stewardship of nature, the Olson Farm will foster public understanding of its specific heritage, distinct environment, and the economic reality of a family farm. Emphasis is placed on natural history and ecology of the farm site, showing how the environment has shaped and been shaped by the cultures and people who have lived there. Olson Farm will welcome teachers and students for tours, workshops and other learning experiences. It will provide community entertainment through educational tours, festivals and living history events.	APTA: Promote and encourage active participation in the preservation of Tennessee's rich historic, cultural, architectural and archaeological heritage through restoration, education, advocacy and statewide cooperation. Belle Meade: Preserve and interpret the historical value of Belle Mead Plantation and to educate the public about its significance in American culture.	The Cooper-Molera Adobe tells the story of the Cooper family, who built it over three generations. It was begun by John Rogers Cooper, a New Englander who immigrated to California and married into a prominent Mexican family, the Moleras. Vision: (1) an active historic interpretation and public education program, centered on the Cooper and Diaz Adobes, but taking full advantage of all other site assets, including other structures on the property, as well as the gardens and grounds; (2) compatible retail use of the Corner Store and the Corner Store Addition; (3) compatible use of the Spear Warehouse and adjacent yard as a restaurant; and (4) adaptation of the Barns for private and public events, ranging from weddings to educational, theatrical, and other arts-oriented uses
Annual Budget	$2.162M (2014)	$216,956 (2014) for Museum	$2,612,144 (2014) APTA	Unknown (opens 2017)

	Bloedel Reserve 7571 NE Dolphin Drive Bainbridge Island, WA	Mary Olson Farm 28728 Green River Rd SE Auburn, WA	Belle Meade Plantation 110 Leake Avenue Nashville, TN	Cooper-Molera Adobe 525 Polk Street Monterey, CA
Revenue Sources	$2,242,718 2014 total revenue Contributions – 42% Investments – 27% Admission – 12% Membership – 10% Programs, events, rentals and sales – 9%	$278,740 2014 total revenue Contributions – 53% Govt. Grants – 20% Programs – 16% Events – 7% Retail Sales – 4%	$2,789,649 2014 total revenue Contributions – 7% Investments – 16% Govt. Grants - ≤ 0% Programs – 45% Events, rentals – 23% Retail Sales – 9%	Admission, retail sales, ground/ building leases, grants, in-kind contributions
Endowment	Roughly $25M in 2014	$1.1M	$4.45M	NTHP Sites Endowment
Capital Expenses		Farm purchased by City w/ Conservation Futures funds. $2 million raised for restoration	$564,475 (2014)	$6.5 million estimate to implement shared use strategy
Operating Expenses	$2.162M total 2014 expenses Programs – 78% Management/general – 14% Development – 8%	$216,956 total 2014 expenses Programs – 81% Management /general – 19%	$2,612,144 total 2014 expenses Programs – 64% Management /general – 14% Capital – 22%	Unknown – mixture of non-profit and commercial uses.
Staff Size	Approximately 35 professional staff/gardeners	6 professional staff – many volunteers	11 at Belle Meade	
Site Size	150 acres	67 acres	30 acres	2 acres
Buildings on Site	1920's home designed by Paul Hayden Kirk, guest house, gate house, sheep sheds	6 historic (house, barn, outbuildings), wagon road	Mansion, 10 outbuildings, visitor's center, winery	2 homes, barn, visitor's center, gift store, adobe walls
Gardens/Open Space	12 distinct gardens, some designed by Richard Haag, 84 acres in second growth forest	Heirloom orchard, 2 meadows, salmon-bearing creek – 2/3 of site in farmland	Organic garden provides produce for on-site restaurant	Existing kitchen garden and orchard re-purposed for outdoor dining and events

	Bloedel Reserve 7571 NE Dolphin Drive Bainbridge Island, WA	Mary Olson Farm 28728 Green River Rd SE Auburn, WA	Belle Meade Plantation 110 Leake Avenue Nashville, TN	Cooper-Molera Adobe 525 Polk Street Monterey, CA
Historic Register	n/a	NR/King County Local	NR	NHL/Local
Interpretive Values and Programs	Serenity, passive nature-based restorative programs, creative residency (arts)	Historic subsistence farm – 12 interpretive panels, closed in winter months	Southern plantation, slave cabin	Portion of property (Cooper and Diaz adobes) to remain museum, interpretation plan involves entire site
Tours/Events	Weddings, concerts, artist programming	Self-guided tours, concerts, artist programming, "Hops & Crops"	Weddings (70 + annually) School/group tours	Plan anticipates tours, weddings and events
"Annual Visitation	Approximately 30,000	4,000 school children annually		Unknown. Visitation very limited with CSP
Comments	Revenue fell short of operating needs 2006-8. Identified $2.5 million needed to augment original endowment. Visitation and memberships began to increase 2010	Free admission as City of Auburn park. Master plan completed 2000, operations plan in 2004.	Headquarters of APTA. Winery started in 2009. No info found on sales/revenue from winery	First NTHP site to undergo shared use "re-imaging". Anticipate other properties to follow.

Bloedel Reserve

The Bloedel Reserve is a "living museum" of gardens and forest preserve that was formerly the home of Prentice and Virginia Bloedel. This Bainbridge Island property was donated to a non-profit foundation in 1987. It is managed by the University of Washington as a "public garden".

The Reserve consists of 150 acres and includes twelve distinct gardens, many of which are designed by Richard Haag, as well as 84 acres devoted to second-growth forest. The c. 1920 principal residence and Japanese style guest house were designed by Paul Hayden-Kirk. Other outbuildings serve various functions from gift shop to stages.

The gardens are the main feature of the property and promote the sense of serenity and reflection that the Bloedel's intended. The Japanese Garden and the Moss Garden are highlights. The overall vision of the Bloedels was "to provide refreshment and tranquility in the presence of natural beauty." As such, the Reserve is dedicated to passive recreation, and does not host weddings or large events. It does, however, support artists with residencies that provide artists, composers, writers, architects and researchers a place to contemplate and create. Its "Strolls for Well-Being" are guided restorative walks that lead participants through steps for self-reflection.

Although an endowment was originally created for the Reserve's future needs, the organization eventually became a 501(c)3 non-profit membership organization and engages in development activities that cover operating expenses and augment the endowed reserves. In 2010, the Reserve welcomed nearly 30,000 visitors. It is listed on the National Register of Historic Places.

Mary Olson Farm (White River Valley Museum)

The Mary Olson Farm is the best preserved subsistence farm remaining in the White River Valley, which at one time was filled with farms. It was purchased by the City of Auburn in 1994 to protect it from encroaching development. The purchase was made using King County Conservation Futures funding, which assures the farm remains in open space for the purposes of passive recreation. The farm is managed by the White River Valley Museum, which was also responsible for raising the nearly $2 million required for restoration/rehabilitation. That restoration effort was completed in 2011.

The 67-acre parcel is officially a City of Auburn park. It consists of a 1902 farmhouse, an 1897 hops barn, several outbuildings, an heirloom orchard, an historic wagon road, two meadows and a salmon-bearing creek. Two-thirds of the site is in forestlands. It is programmed as a self-guided museum with twelve interpretive panels describing life on an early 20th century farm, as well as work to reclaim the creek for salmon. It is a popular destination for school children. Some 4,000 tour annually. As a city park, admission is free to the public but donations are requested.

Besides educational events, the site hosts the Auburn Symphony Orchestra, arts events, poetry readings, and a very popular "Hops to Crops" festival. It is open seasonally, June to September. The farm is listed on both the National Register of Historic Places and the King County Register of Historic Places.

Belle Meade Plantation

Belle Meade is one of the last remaining intact examples of a 19th century southern plantation. Originally built in c. 1820 and remodeled several times (most extensively in 1845), Belle Meade survived the Civil War and was purchased in 1954 by the Association for the Preservation of Tennessee Antiquities (APTA). It serves as the association's headquarters. Belle Meade is located on the outskirts of Nashville, Tennessee and is operated as a museum and events center. APTA owns fourteen properties throughout Tennessee and uses local chapters as management entities.

The 30-acre site represents only a fraction of the original land holdings. However, it contains the prominent built features, including the mansion, dairy, stable, log cabin, mausoleum and gardens. A carriage house features a restaurant that services weddings and events. A winery opened in 2009. About 90 events (mostly weddings) are held at Belle Meade annually. In addition, it is open for school and group tours.

Belle Meade is supported by memberships, donations, and admissions. No information was found about the winery operation or the role it may play in supporting the mission of the plantation or APTA statewide operations either through lease or licensing arrangements. Likewise, no specific information on event revenue was obtained. It is listed on the National Register of Historic Places.

Cooper-Molera Adobe

This complex of early 19th century buildings is located in downtown Monterey, California. It is owned by the National Trust for Historic Preservation, and until recently was managed under a long-term lease by the California State Parks department as part of the Monterey State Historic Park. The adobe is a museum dedicated to portraying the early Anglo and Mexican heritage of California as it transitioned from Mexican to American rule. It is listed on the National Register of Historic Places

The site is two and one-half acres and includes two residences (one built in 1827), a corner commercial space, barns, a barreling plant and a garden, all surrounded by an adobe wall. An active volunteer network was responsible for operating tours and the gift shop. By about 2011 the California State Parks budget crisis resulted in deferred maintenance and dwindling visitation (by appointment only with a two-week lead time). They notified the National Trust that they were not in the position to renew the lease on the property. The National Trust subsequently embarked on a "re-visioning" process for the site that resulted in a partnership with a local developer in a "shared use" agreement that will transform the property into a combined museum and commercial entity. The developer will invest about $6.5 million in restoration/rehabilitation. The two adobe residences will remain museums operated by the National Trust. The barreling plant and garden are to become dining facilities with retail operations resuming in the corner store. The complex is expected to open to the public in the Spring of 2017. The National Trust, which negotiated the agreements in cooperation with local preservation groups, is looking at Cooper-Molera's shared use agreement as a potential model for monetizing its other historic property holdings. The complex is expected to remain a part of the Monterey State Historic Park.

Comparative Japanese Garden Examples

Japanese (and now Chinese) gardens have held a particular fascination to Americans. Some are completed by immigrant Japanese garden designers for a wealthy American elite, as a folly within a setting; others were or are associated with a public site; others are completed for commercial purpose, as to promote a nursery; others are created by and for a Japanese immigrant audience. Today, there are more than 300 Japanese public gardens in North America. Particularly relevant to consider are the nursery gardens and some of the private gardens, created with simpler means, but particularly resonant within the Japanese immigrant community. In the Northwest, there are several examples. The following two are immediately relevant.

Kubota Gardens

Fujitaro Kubota emigrated from Shikoku, Japan in 1907. Kubota established his business in 1923, Kubota Gardening Company. He worked on many notable projects in the region including the garden at Seattle University and the Japanese garden at Bloedel Reserve in Bainbridge Island. Kubota purchased 5 acres of then swampland in Rainier Beach in 1927 in order to start his own garden. By 1930 he had expanded the garden to encompass 30 acres. During these years of development and the garden, in addition to being Kubota's outdoor office and nursery, provided a cultural anchor for the area's Japanese community. The garden is currently a Seattle Park, and there has been considerable effort by the Japanese American community towards its revitalization and use.

Seike Japanese Garden

Opened in 2006, was relocated to the Highline SeaTac Botanical Garden, from the former site of the Des Moines Way Nursery in the city of SeaTac. Shinichi Seike immigrated to the United States in 1919 and ran an import/export business in Seattle. In 1929 he purchased 13 acres near Des Moines Memorial. After the war, Shinichi Seike started a nursery on the site in 1947 and hired Shintaro Okada, a garden designer from Hiroshima, to assist with planning and construction of a garden, completed in 1961. The relocation effort could be a helpful example, with recently recreated stonework, pond, and built elements such as the bridges and lanterns, saving only the most significant plants, preserving the designers original intent and retaining a significant local horticultural, cultural, and historical amenity. In 2001 Karen Kiest prepared all documentation of the original Garden prior to the relocation.

Mukai House. Courtesy Department of Archaeology and Historic Preservation.

C. House Technical Guidance

This appendix provides technical guidance for the house to support ongoing stewardship and decision-making. Refer to the Historical Context for additional background on the period of significance.

- Treatment approach: Restoration
- Period of significance: 1928, original construction

Degree of Extant Character-defining Spaces and Features

The spaces and features of the house remain remarkably intact. They offer visitors an opportunity to step back through time and connect with the buildings historic associations and functional associations with the Japanese garden.

The exterior retains a high level of integrity. Windows, siding, concrete work, trim, and roof form remain intact. Alterations are minor and include the addition of non-fitting storm windows, fascia boards behind the gutters.

Interior spaces retain a high level of integrity at both the first floor, attic, and basement levels. Alterations on the first floor were minor, consisting of added ceiling finishes, sheetrock wall and ceiling coverings in a couple spaces, and some new light fixtures. Many of these changes occurred as repairs to address water infiltration, such as the past roof failure over the kitchen. The basement and attic were both utilitarian spaces where modifications have removed some original finishes in the basement, but overall the character of the spaces remains intact.

Condition Assessment Findings

Overall the building remains in good condition and has a new roof. The following list some of the key condition issues for the building. Refer to Treatment Recommendations for a more detailed listing of condition issues and stems to correct them.

- Window and door repairs to address deferred maintenance and improve energy efficiency.
- Settlement and cracking stemming from the lack of site drainage and grade settlement directing water back against the building.
- Front porch drainage back into the first floor, coupled with the inadequate construction of the framing system supporting the concrete porch deck.
- Electrical system consists of a mix of knob and tube and conventional wiring with knob and tube running through insulation and connected to the service panel at open junction boxes, often without wire nuts at wire connections.

Analysis

Historical and architectural significance and levels of original public visibility are the primary factors in evaluating the building's physical features and spaces to determine the level of historic integrity and relative priority of features and spaces. The building can be divided into areas of relative character-defining importance. The historic significance of these areas stems from the history of construction, past occupants and events, and quality and integrity of architectural details. This analysis takes into consideration National Register Bulletin How to Apply the National Register Criteria for Evaluation.

Significance Levels

Building features and spaces are designated as Primary, Secondary, Minimal, or None, based on the level of contribution each makes to define the building's architectural character and historical significance. The basis for categorization stems from the importance of the feature or space for the family, guests, and visitors; whether the feature or space is original, or is a historically significant or contemporary addition; the extent of modifications and additions to the feature or space; and the compatibility of finishes and building materials employed in the historic and contemporary changes to the feature or space.

The intent is not to fragment the building into divisible parts that can individually be preserved, modified, or discarded in future planning; rather, it is to view the building as a collective resource of character-defining features and spaces and provide some direction for necessary treatments or alterations. The goal is to steer toward solutions that will permit continued improvements to areas with minimal or no significance, and to prevent eroding or adversely impacting those character-defining features and spaces with primary significance levels.

This section is intended for use in conjunction with the Decision-making Matrix. Significance levels assigned through this analysis are plotted on maps within this appendix.

Primary: Features and spaces original to the building that display a high level of physical integrity, although possibly with minor changes or historically significant alterations created to fit into the design or character of the original feature or space. At an architectural significance level, the finishes, design, and materials are of a high quality and assemblies well made. They convey a consciousness of setting, often semi-public use, and typically exhibit design qualities defining the building's architectural style or trademarks of the architect. They reflect prevailing design influences during the building's period of construction. These elements would contribute to the building's historic listing status under Criterion C (architectural character). At a historical significance level, they may also be noted for important historic events supporting the building's historic listing status under Criterion A (association with historic events). Their removal or extensive alteration would detract from the overall architectural and historical significance of the building. Primary spaces and features may exhibit either or both architectural and historical significance associations.

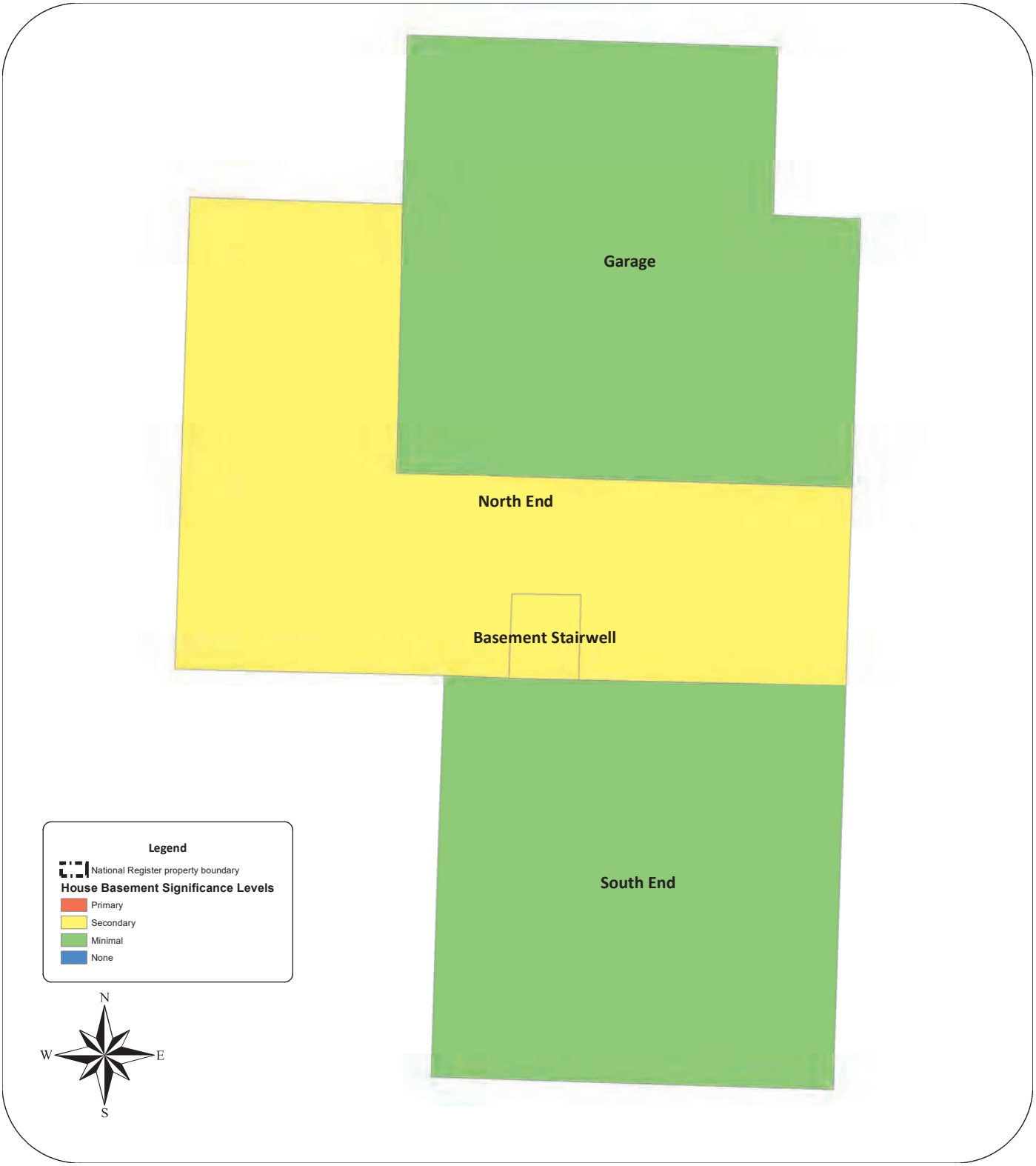
Secondary: Features and spaces are original to the building, though likely to have experienced changes and/or historically significant additions. They retain some historic character and significant features. They exhibit utilitarian, well-crafted but not lavish, building materials or architectural features. Secondary spaces and features may exhibit either or both architectural and historical significance associations. At a historical significance level, they often served supporting roles to historic functions in primary spaces.

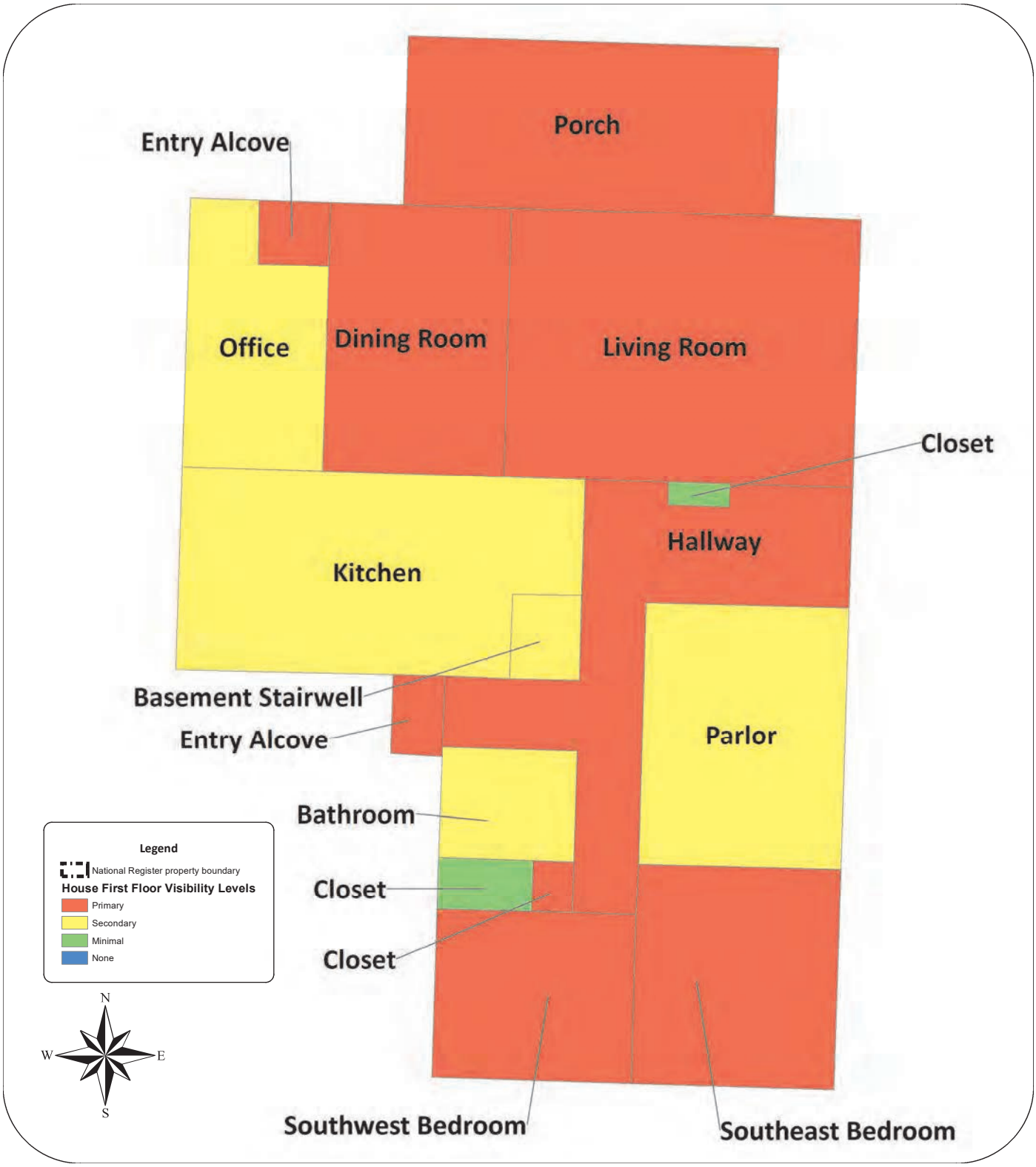
Minimal: Features and spaces have few distinguishing architectural characteristics. At a historical significance level, they often served supporting roles to historic functions in secondary spaces. Alternatively, an extensive, non-compatible contemporary remodel might obliterate nearly all significant architectural features and spatial configurations through introduced contemporary features and spaces.

None: Features and spaces have no remaining architectural features or spatial configurations dating to either original construction or significant historical modifications, or are contemporary features and spaces that are not compatible with the original design. Due to the absence of original materials, configurations or architectural design elements, these spaces do not have historical associations.

Public Visibility Levels

Public visibility complements the architectural and historical significance category by identifying which spaces


Garage
North End
Basement Stairwell
South End
Legend
National Register property boundary
House Basement Significance Levels
Primary
Secondary
Minimal
None
N
W
E
S


Porch
Entry Alcove
Office
Dining Room
Living Room
Closet
Hallway
Kitchen
Basement Stairwell
Entry Alcove
Parlor
Bathroom
Closet
Closet
Southwest Bedroom
Southeast Bedroom
Legend
National Register property boundary
House First Floor Visibility Levels
Primary
Secondary
Minimal
None
N
W
E
S


North End
South End
Legend
National Register property boundary
House Attic Significance Levels
Primary
Secondary
Minimal
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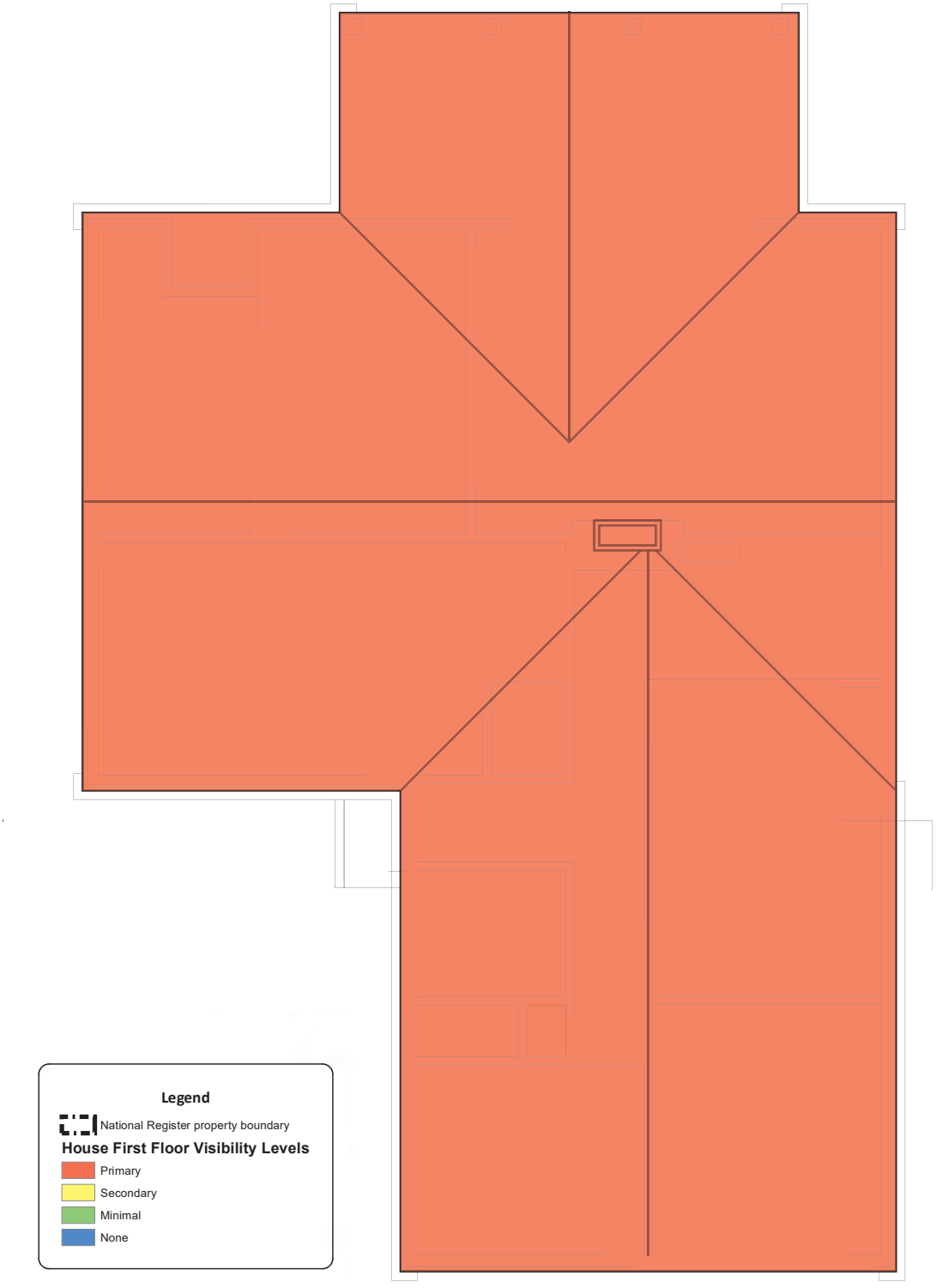
Legend
National Register property boundary
House First Floor Visibility Levels
Primary
Secondary
Minimal
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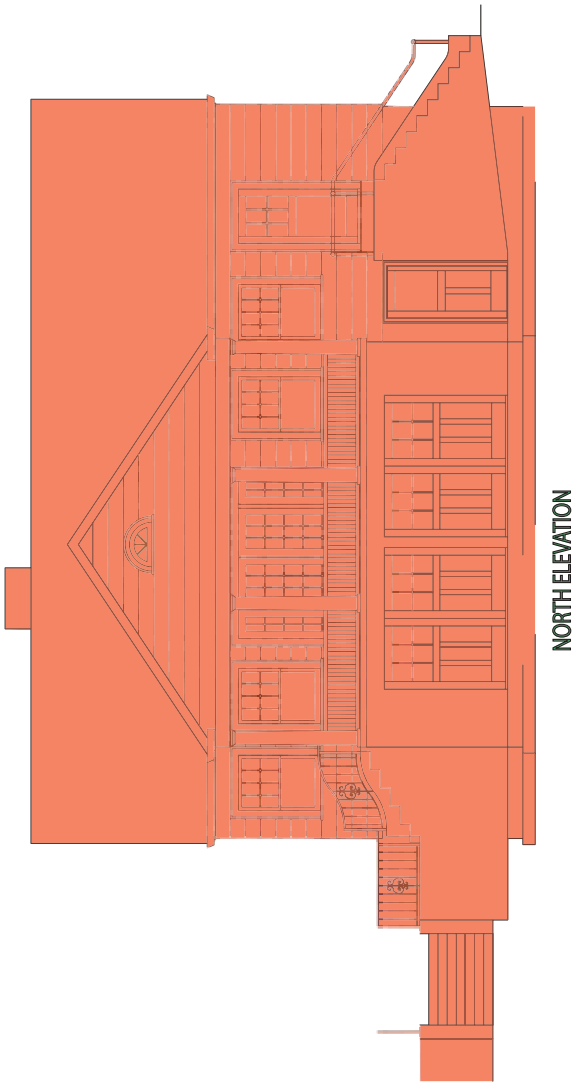

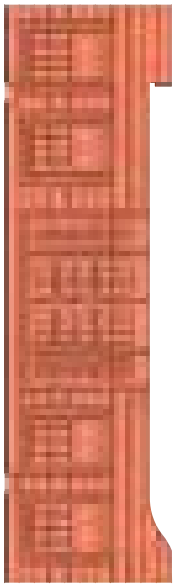

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House First Floor Visibility Levels

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- Secondary
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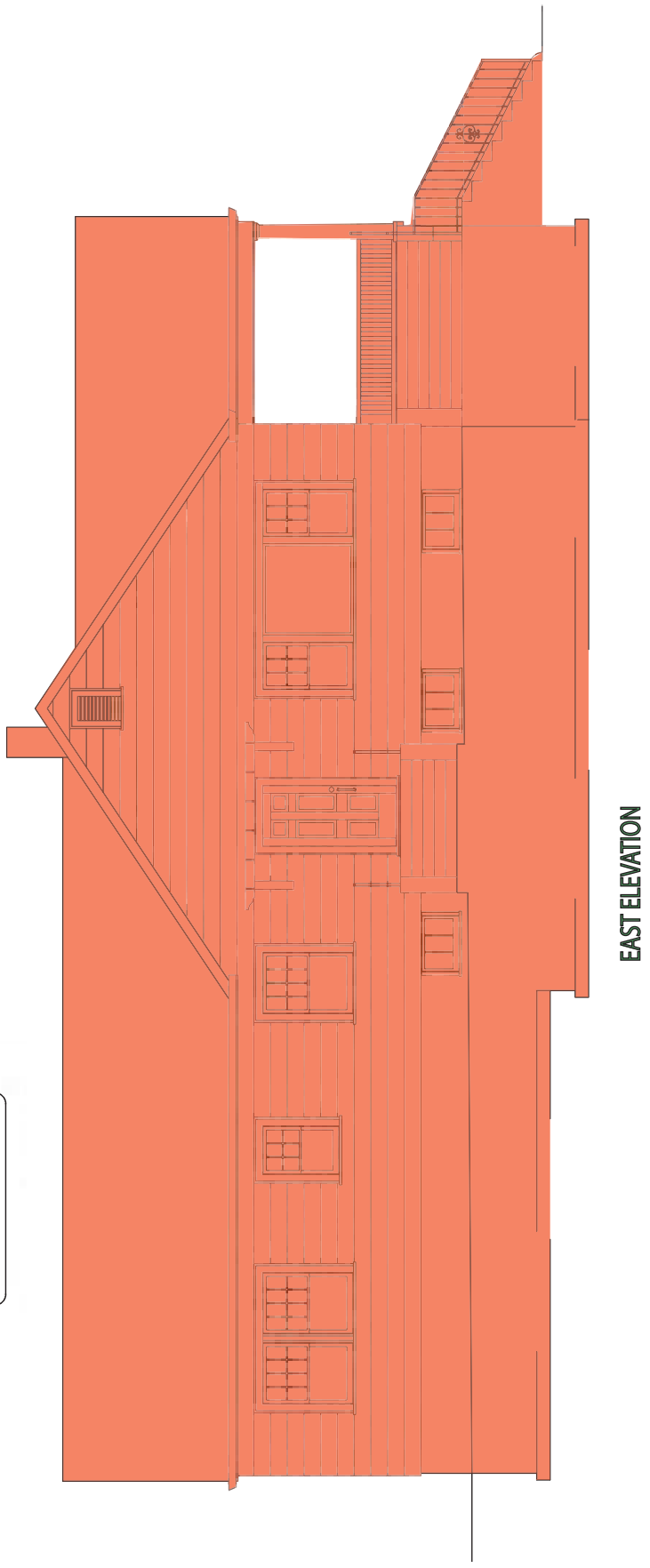
EAST ELEVATION
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House First Floor Visibility Levels
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Secondary
Minimal
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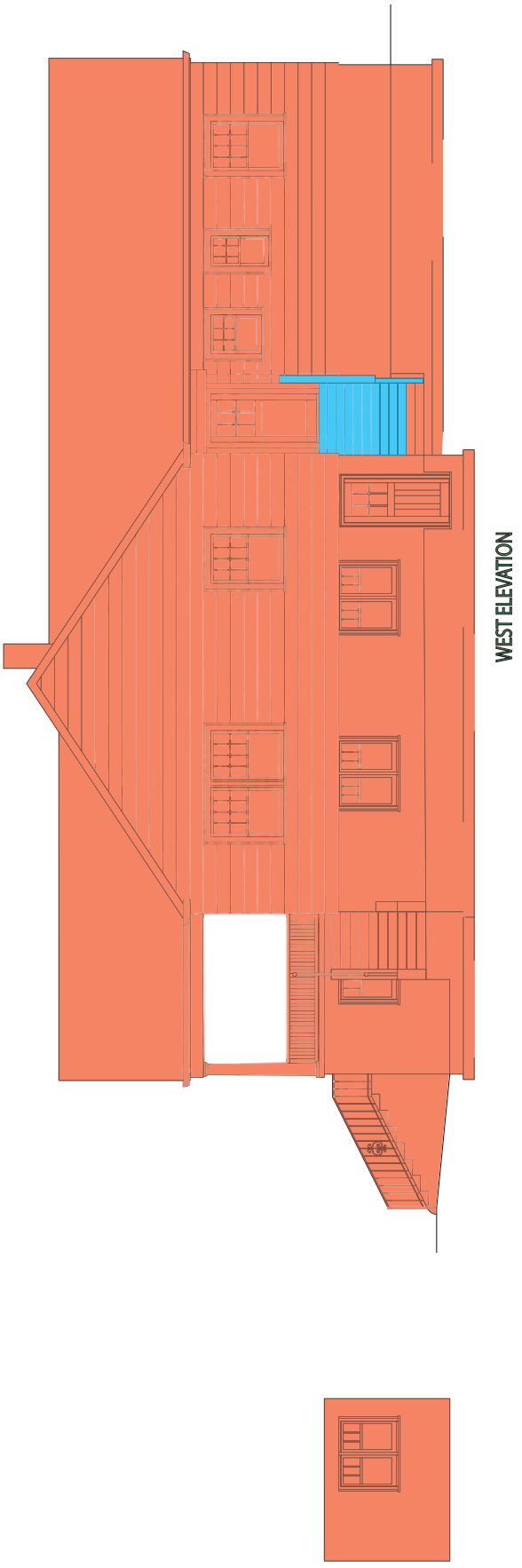

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House First Floor Visibility Levels

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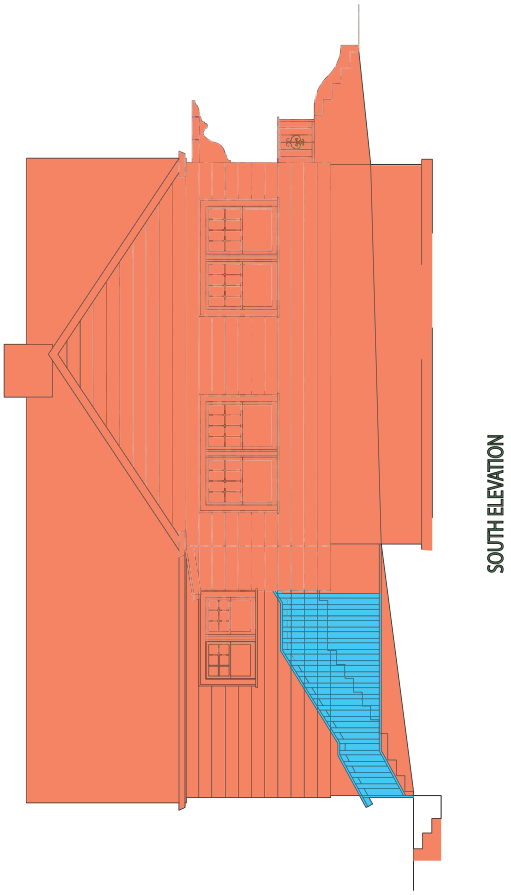
- Secondary
- Minimal
- None



Legend

National Register property boundary

House First Floor Visibility Levels

- Primary
- Secondary
- Minimal
- None

and features were originally accessible to or visible by the public. Accessibility in this sense does not pertain to either the American Disabilities Act (ADA) or International Building Code (IBC) access; rather, it speaks to the user groups originally intended for these features and spaces. Distinguishing between levels of accessibility on the building exterior and interior identifies which features and spaces should receive increased attention to their preservation and interpretation due to their original public nature. There are four categories of public visibility applicable to the building: public, semi-public, semi-private, and private. Public and semi-public spaces typically feature a higher level of architectural detailing and design than private family areas; they also generally have larger square footage, larger windows for natural lighting and view appreciation, and less physical divisions (i.e., walls). Features and spaces that are primary and public are particularly important and deserve special attention due to their role in presenting the architectural style and design intent.

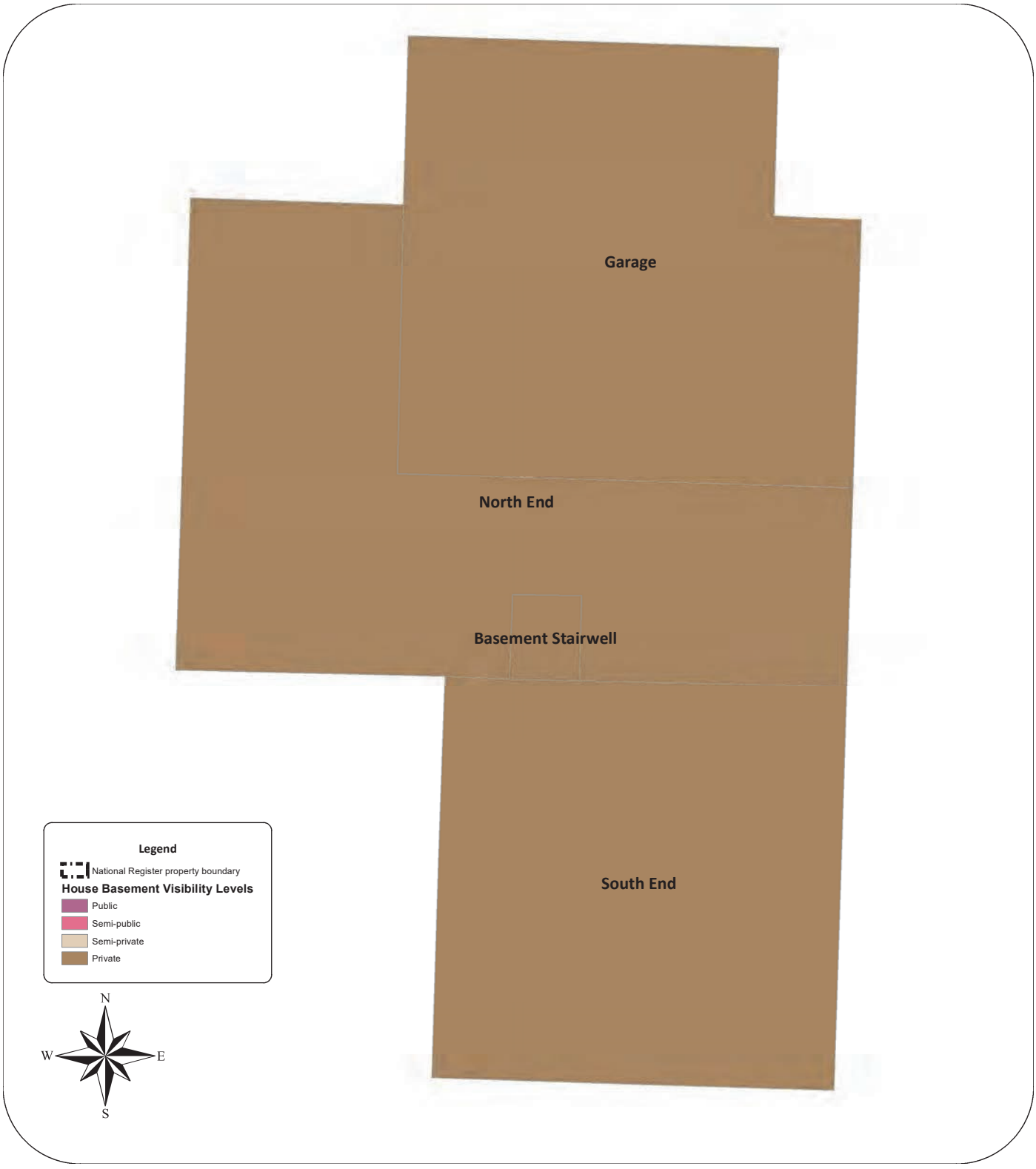
To assist in decision-making, the following public accessibility maps show these original levels of public accessibility layered over building floor plans. Matching spaces originally intended as public or private with similar new levels of access and functions preserves the interpretive value of the original function of the space, while facilitating the adaptive re-use of private spaces.

Public Areas: Features and spaces, to which any visitor originally might view or enter with minimal to no restrictions placed on ability to approach, move through, or occupy. Consequently, the role as a public space was integral to the design process as reflected in the functions and design of the features and finishes, hardware, fixtures, furnishings, sizes, and proportions of interior spaces.

Semi-public Areas: Features and spaces that were accessible to the public only as invited guests of the family or originally not in prominent view from exterior public right-of-ways, or served as the connection between public and private spaces within the building.

Semi-private Areas: Features and spaces that were available for family members and close family guests, but not the public. They are not in prominent view from exterior public right-of-ways.

Private Areas: Originally for family members only.


Garage
North End
Basement Stairwell
South End
Legend
National Register property boundary
House Basement Visibility Levels
Public
Semi-public
Semi-private
Private
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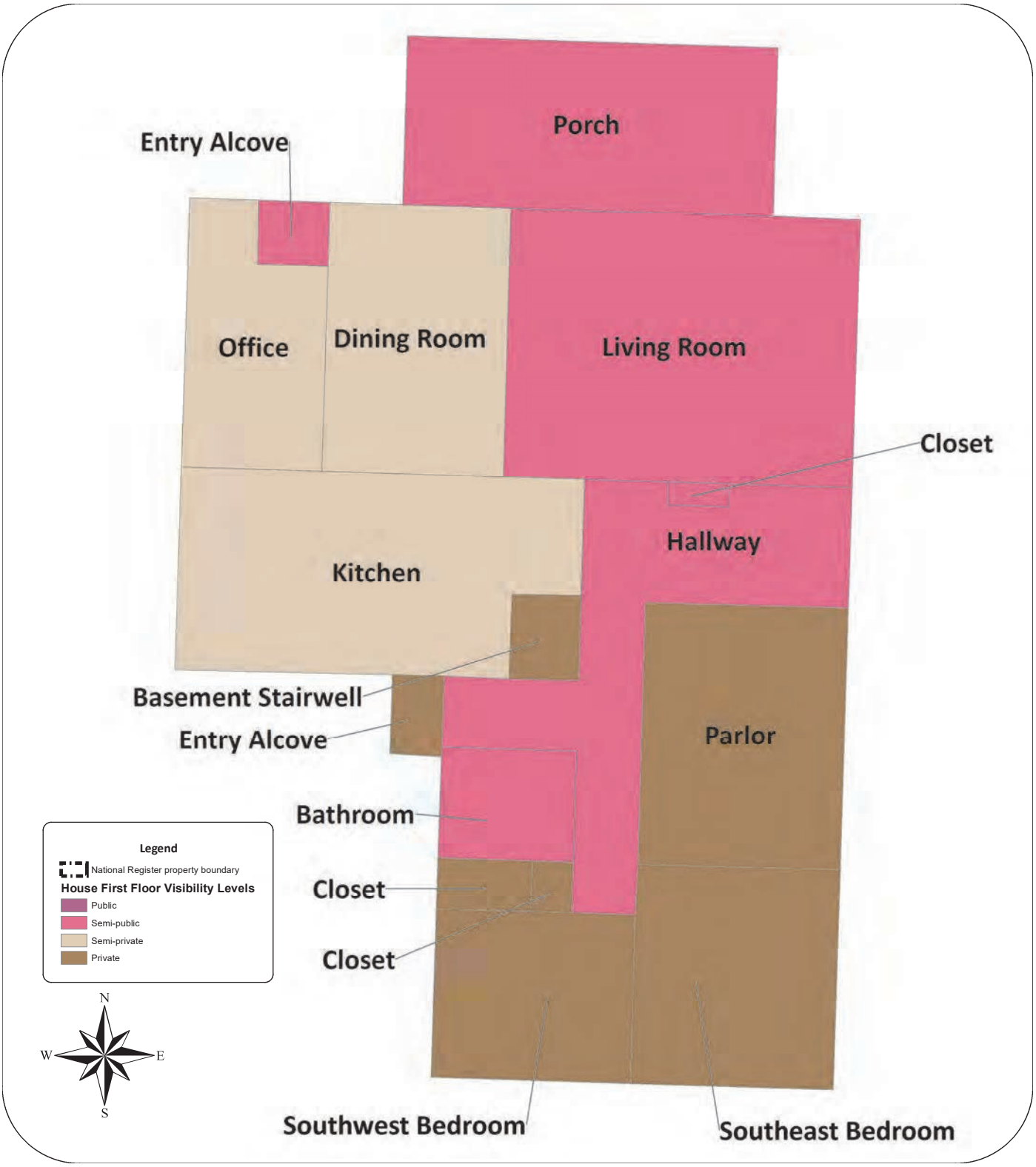
Porch
Entry Alcove
Office
Dining Room
Living Room
Closet
Hallway
Kitchen
Basement Stairwell
Entry Alcove
Parlor
Bathroom
Closet
Closet
Southwest Bedroom
Southeast Bedroom
Legend
National Register property boundary
House First Floor Visibility Levels
Public
Semi-public
Semi-private
Private
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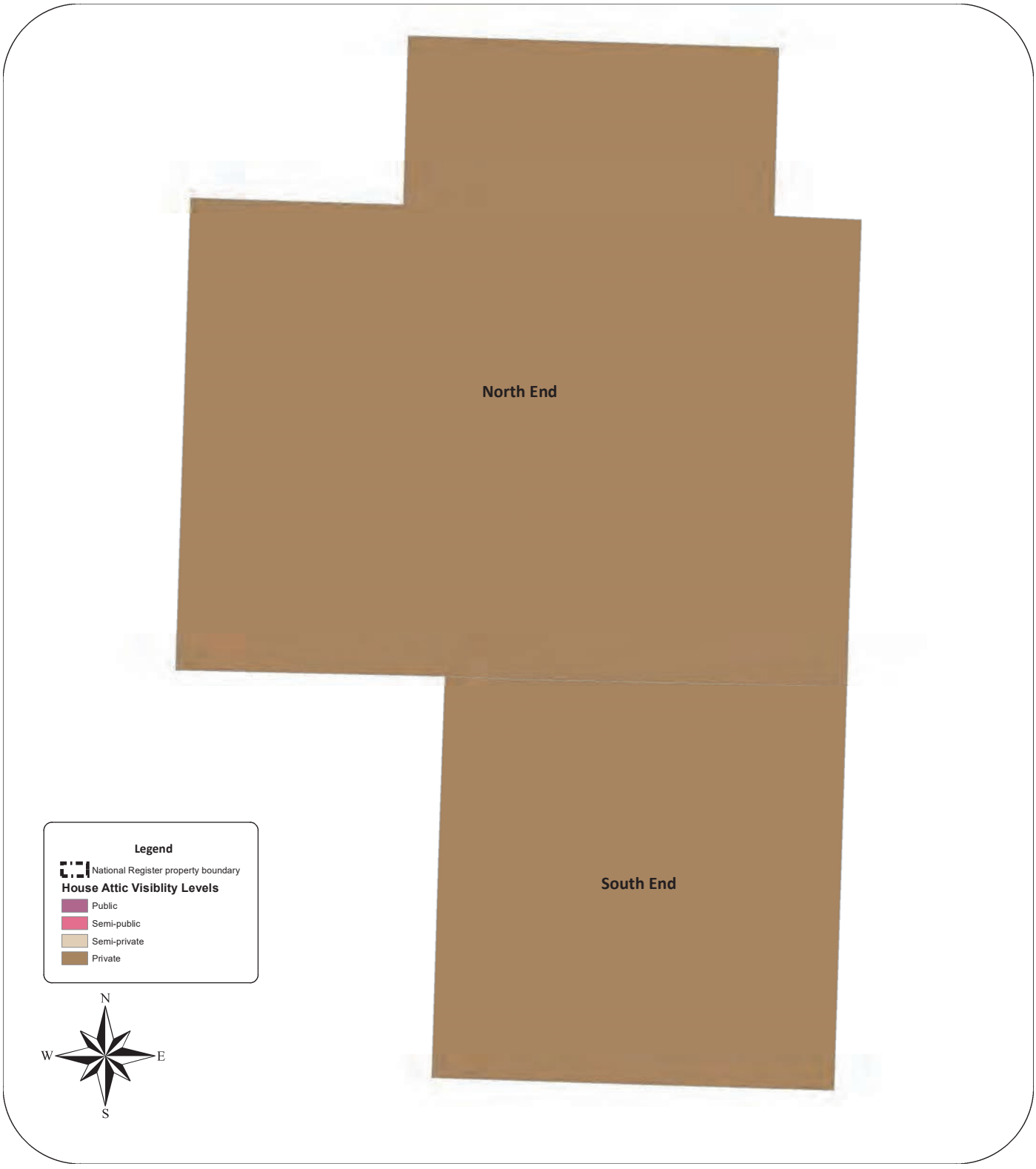
North End
South End
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National Register property boundary
House Attic Visiblity Levels
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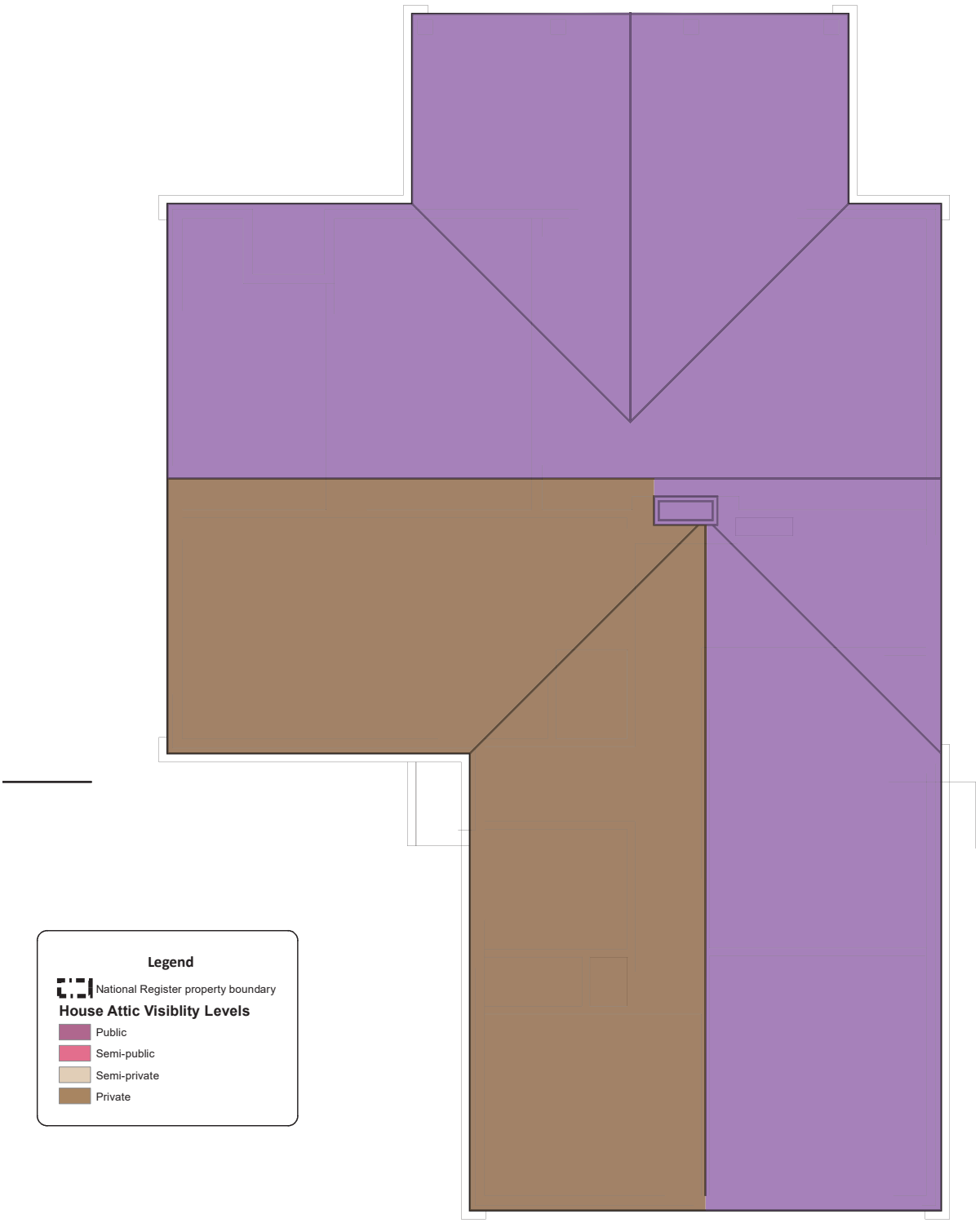
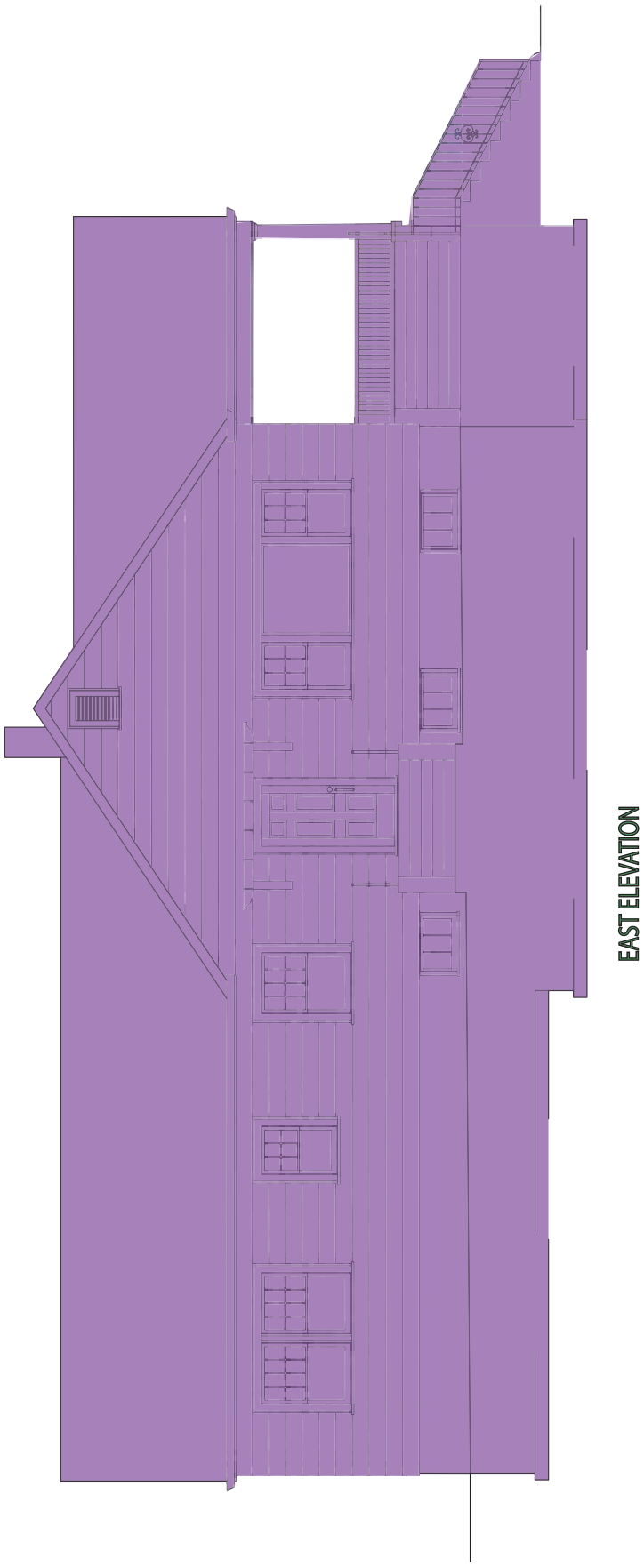

Legend
National Register property boundary
House Attic Visiblity Levels
Public
Semi-public
Semi-private
Private

Legend

National Register property boundary

House Attic Visiblity Levels

- Public
- Semi-public
- Semi-private
- Private



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House Attic Visiblity Levels

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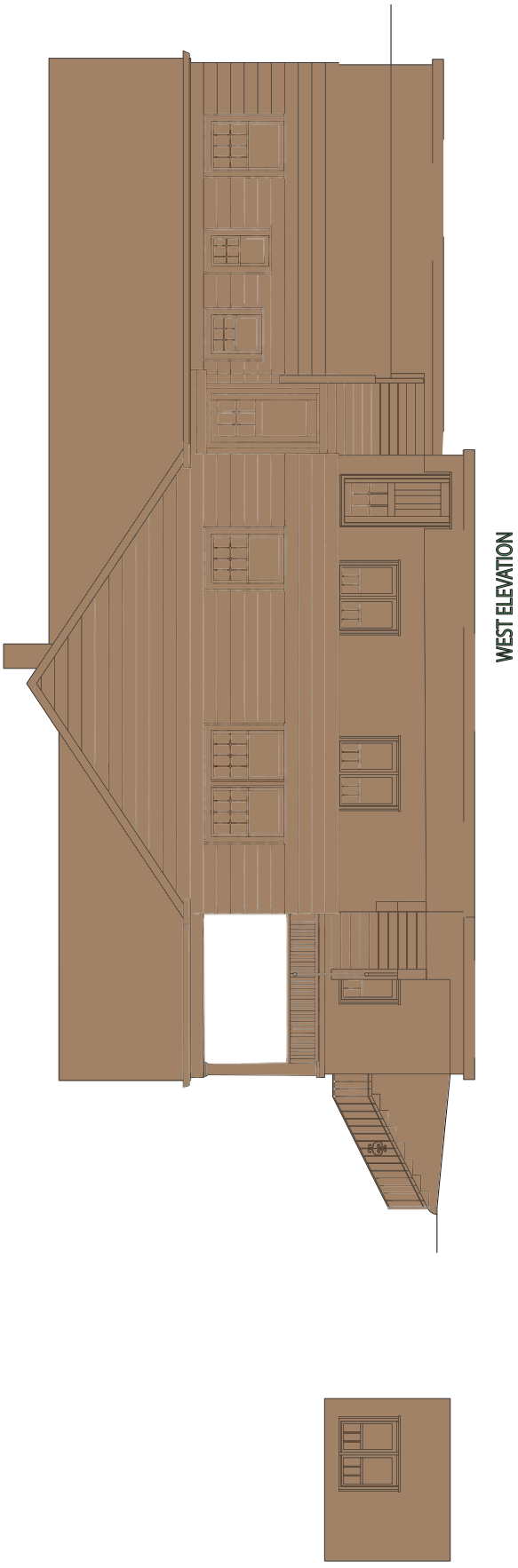
- Semi-public
- Semi-private
- Private

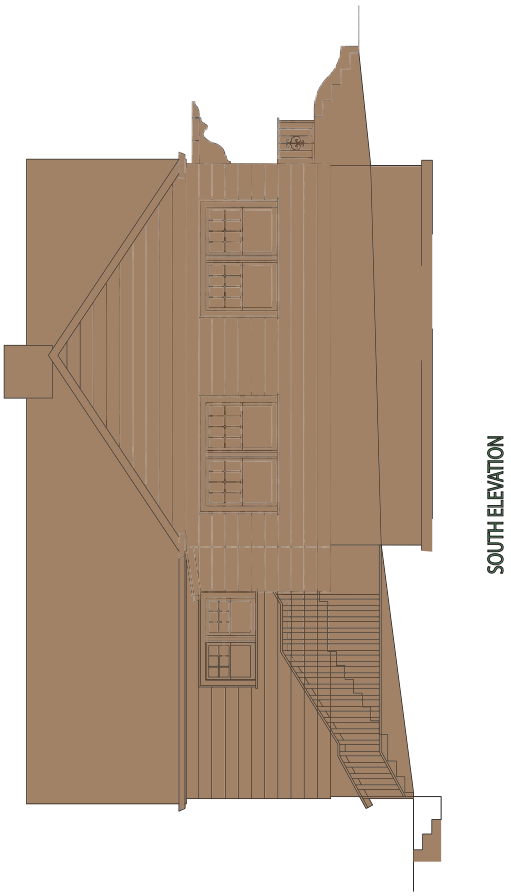


Legend

National Register property boundary

House Attic Visiblity Levels

- Public
- Semi-public
- Semi-private
- Private



Legend

National Register property boundary

House Attic Visiblity Levels

- Public
- Semi-public
- Semi-private
- Private

Exterior Features Catalog

The purpose of the following catalog of character-defining exterior features is to facilitate compliance with the goal of the Secretary of the Interior's Standards for the Treatment of Historic Properties, which is to preserve the building's distinguishing visual and physical character.

The approach employed by Artifacts Consulting, Inc., in developing this catalog follows guidelines established in the National Park Service Preservation Brief 17, "Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character." This catalog facilitates quick reference during rehabilitation projects to identify which features remain intact and are important to maintaining the character of the building exterior, and which have been altered and as such are more adaptable.

Features follow in alphabetical order starting with the exterior and then the interior and address:

- Configuration
- Character-defining features
- Alterations

All information is based on fieldwork conducted between July and November of 2016 and available archival records.

Entrance, Northwest, First Floor

Character defining features

- Lower single panel door, wood, with upper six lites, painted
- Painted metal pipe railing with round joints along stair and at landing
- Tongue and groove, 3" face, Doulgas fir flooring at landing
- Goose neck exterior light fixture above the exterior entrance, painted
- Threaded iron rods with bolt and washer installed at lower and mid portions of the stairs
- Bead board soffit with concave moldings along edge (area in attic above the soffit has an extensive set of electrical circuits crossing directly above the soffit)
- Wood casings, painted, flat stock with built up cyma reversa outer cap with mitered corners.
- Hinges, butt, two
- Thumb type dead bolt
- Concrete stairs leading up to entry
- Concrete landing at top of stairs with scored concrete panel, stained red

Alterations

- Metal post adjacent house at landing removed and new connection installed linking the railing to the house.
- Contemporary knob, round escutcheon
- Electrical panel added within alcove along north side (original connection occurred at west gable end)
- Added rubber walk off mat at exterior
- Pressure treated riser at the transition from the concrete landing up to the inner wood landing, along with metal flashing
- Added ½" by 3" boards along sides of inner landing at transition to shingles
- Stairs settled 1 to 2 inches
- Weather stripping added at door, in poor condition

Entrance, West, First Floor

Character defining features

- Lower single panel door, wood, with upper six lites, painted
- Round knob type door knobs and original thumb type dead bolt
- Glass stopped in from the outside with wood stops
- Original spring closer
- Wall sconce above doorway (missing fixture)
- Bead board soffit, painted with cove molding along north side
- Hinges, butt, two
- Wood casings, painted, flat stock with built up cyma reversa outer cap with mitered corners.
- Painted wood shelf along east side of alcove wall with scalloped bracket
- Wood sill and threshold

Alterations

- New throw bolt on interior
- Pressure treated wood steps, railing, and landing leading up from lower concrete steps to entrance
- Curtains added at interior

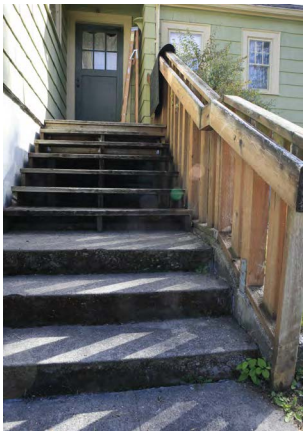
Entrance, West, Basement

Character defining features

- Lower three panel door, wood, with upper six lites, painted
- Round knob type door knobs
- Glass stopped in from the outside with wood stops
- Hinges, butt, two
- Wood casings, painted, flat stock with built up cyma reversa outer cap with mitered corners.

Alterations

- Added concrete at threshold to build up due to settlement
- New metal threshold
- Glazing putty added at some missing stop locations on door



Entrance, East

Character defining features

- Wood, six panel door
- Metal railings with decorative curved railing ends and scroll pattern
- Concrete stairs with recessed panel at risers and decorative slope at cheek walls
- Grid at landing scored in concrete and stained red
- Brass hardware, push with thumb latch with dead bolt above, and glass interior knob and round dead bolt latch
- Wood casings, painted, flat stock with built up cyma reversa outer cap with mitered corners.
- Hinges, butt, two
- Wood lug sill
- Canopy projecting out over front stairs carried on painted wood brackets (built up) with a bead boar soffit and metal tie bolts extending back through the east facade. The tie bolts through bolt to a wood block spanning the wall framing within the attic. Concave molding along west edge of soffit.
- Metal lantern type wall sconces flanking the entrance

Alterations

- New dead bolt at door
- Added rubber walk off mat at exterior
- New weather stripping along bottom rail
- Replacement wood threshold

Entrances, North, Porch & Garage

Character defining features

- Metal railing with brass finials, the railing follows the flights of concrete stairs down from the porch to the garage level. Decorative metal scroll work on the railings.
- Concrete stairs, cast in place, with recessed riser panels and glass bottle ends used to cast openings for railing installation. These two flights run from the porch down to a lawn level landing and then continue down to the garage grade level.
- Wood casings, painted, flat stock with built up cyma reversa outer cap with mitered corners at first floor level entrance.
- Spigot on the north side of the concrete stairway wall
- Outer wood posts supporting a perimeter wood beam below the porch roof and soffit, consisting of built up wood enclosing the structural core with a painted wood railing and balusters between the posts.
- Bead board soffit, painted, with concave molding along edges
- Central soffit mounted light fixture
- French doors (15 lite) and matching side lites (12 lites each). Wood threshold, glass lites, pull with thumb latch hardware and dead bolt above. Interior: original dead bolt round, round glass knob, flush bolts and hinges. All exterior and interior surfaces painted. West leaf has locking mechanisms which connect into floor and ceiling; east leaf has twist, round metal knob.
- Side hinged, multi-lite garage doors (existing are compatible contemporary rebuilds) matching upper six lite and lower 3 panels of basement door on west facade
- Reinforced concrete walls with exterior cementitious parging at the basement garage level
- Concrete porch slab

Alterations

- Electrical outlet added immediately east of the entrance door sidelight
- Exterior light switch east of the main north entrance, unknown what light this switch connects to
- Replacement parging along the north and west sides of the garage walls
- Added painted coating on the concrete porch slab
- Added wood post between the garage doors supporting the header
- Garage doors rebuilt, 6 lite with 3 lower panels, two sets of paired doors, side hinged, wood.
- Previous crack patching along the length of the west facade above the window header height and along the north side above the garage doors
- New concrete apron along north side of the doors with an added drain

Entrance, North, Basement

Character defining features

- Wood sash and frame door with upper glass lite and two lower vertical panels
- Iron door knob and rectangular escutcheon
- Wood casings, painted, flat stock with built up cyma reversa outer cap with mitered corners.

Alterations

- Added foam weather stripping
- Added dead bolt

Foundation

Character defining features

- Board formed concrete stem wall and footing
- Cementitious parging layer added at exterior
- Water spigot on east facade, just north of the east entrance stairs

Alterations

- Painted exterior surfaces

Siding

Character defining features

- Coursed, wood shingles of irregular widths, painted
- Eave vents, wood, painted

Alterations

- Added wood bird house in the east gable end
- Added Ethernet cable connection run through siding to exterior at southeast corner of house, opening is sealed, functional but not the best way to do this.
- Phone and cable internet connection, line and box on north end of west facade

Roof

Character defining features

- Side gable roof form
- Gutters and downspouts (existing are contemporary)
- Enclosed soffits consisting of a concave molding below an elliptical convex molding supporting the built out soffit that provided backing for the original gutters
- Enclosed gable ends consisting of built up fascia that connects with the enclosed soffit, with a cyma reversa rake molding above

Alterations

- Existing gutters and downspouts are contemporary replacements, add facing boards installed as part of the gutter additions extend down past the original fascia line, making for a slightly heavier profile
- Asphalt composition shingles added in 2016 along with metal drip flashing

Windows

Character defining features

- Wood frames and sash, painted with slender muntins, all interior surfaces painted
- Glazing putty and metal points securing single pane glass in place
- Exterior wood casings, painted, flat stock with built up cyma reversa outer cap with mitered corners
- Metal sheaves, sash locks, and cotton sash chords at double hung sash
- Sash latches and butt hinges at casement sash
- Exterior painted wood lug sill having a slim profile and projecting beyond wall plane to provide drip away from the shingles below
- Type A: 8 over 1 lite, double hung sash
- Type B: 8 over 1 lite, double hung sash, paired with a mullion separating the sash
- Type C: 6 over 1 lite, double hung sash, these occur in varying widths depending on location
- Type D: 6 over 1 lite, double hung sash, paired with a mullion separating the sash
- Type E: 6 over 1 lite, double hung sash, paired with a central fixed lite and mullions separating the sash
- Type F: 3 lite, casements
- Type G: 3 over 1 lite, paired casements

Alterations

- Replacement sash locks at most double hung sash, often with added blocks to adjust for sash not closing fully
- Added exterior storm windows most first floor windows
- Added curtains on the interior

Interior Catalog

The purpose of the following catalog of character-defining interior systems, features, and spaces is to facilitate compliance with the two core goals of the Secretary of the Interior's Standards for the Treatment of Historic Properties:

- Preserve the building's historic spaces
- Preserve the building's distinguishing visual and physical character

The approach employed by Artifacts Consulting, Inc., in developing this catalog, follows guidelines established in the National Park Service Preservation Brief 17 Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character. This catalog can serve as a quick reference during space programing for rehabilitation projects to identify which spaces remain intact and are important to maintaining the character of the building, and which have been altered and as such are more adaptable to new uses. The building's floor plans, spatial types, and individual spaces serve as the organizational framework for this catalog. Within each grouping, spaces are listed alphabetically according to their original function. The data on each space provides information on general description, changes when known, level of significance, and images for identification. Cross references are provided to the catalog of character-defining features to provide additional detail on individual features within the spaces.

The vast collection of character-defining spaces fall into two main groupings:

- Those key spaces, individually attributed to the building's character and historical significance
- Those contributing collectively to the building's character and historic function(s)

An example of the first category include living room. Examples of the second category include the bedrooms.

SYSTEMS

The following addresses the three main systems supporting building operation.

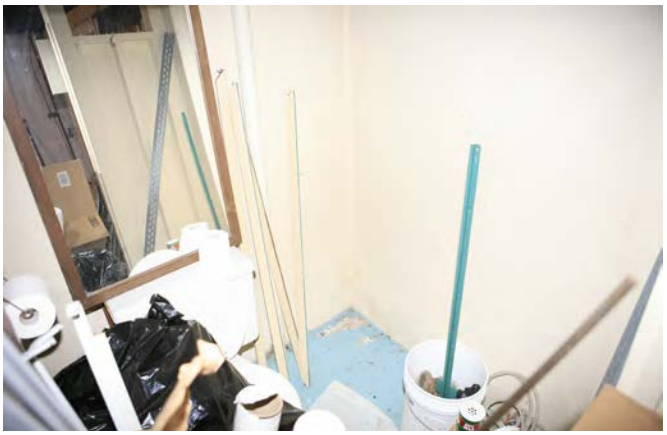
Plumbing

Character-defining features

- Cast iron waste lines exiting the building on the west facade at the south and north ends of the building with clean outs at these locations. The cast iron line on the west side at the south end connects with the sink and bathtub and a vent stack. Hair trap for tub along line. Clean out at base of 5 inch line, with a brass plug at the clean out.
- Vents running through the roof on the west side of the building.
- Waste line from the kitchen, 2 inch diameter, runs down the south wall through the concrete slab with a clean out and a Y connection into which the utility sink connects
- Bathroom in basement, no trenching for toilet, original line

Alterations

- Replacement of original water supply lines with copper piping throughout the building.
- Replacement of waste lines from sinks with black ABS piping.
- Plastic stuffed in around tub connect.
- ABS line from the utility sink connects just above cast iron at concrete. This drains the utility sink. The washer drains into the utility sink which in turns follows the sink drain. Originally galvanized metal water lines from kitchen for sink these are cut off and replaced with copper.
- White water line on the west side of the basement that feeds out to unknown location.



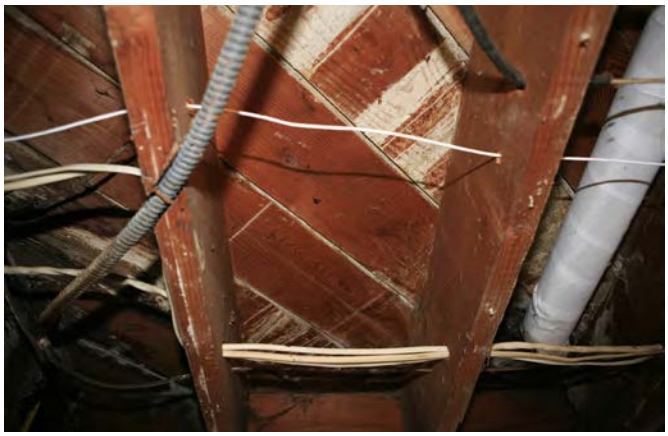
Electrical

Character-defining features

- Switch, 2 original switches with the Arrow brand and a metal plate (2), one in hall the other at the front entry vestibule, each goes to the overhead fixture they are near.
- Outlet, 1 original outlet on the east side of the kitchen behind the door and 1 original outlet in the hallway on the east wall. Both have new plates.
- Knob and tube wiring within the building. The existing circuits date from the power service change to the northwest first floor entry alcove. Light circuits fan out within the attic servicing rooms. Outlet circuits drop down to the basement and run under the floor to service outlets.

Alterations

- Replacement of the majority of outlets with duplex receptacle grounded and non-grounded throughout the house. These included new cover plates.
- Replacement of the majority of switches with new and dimmer type switches throughout the house. These included new cover plates.
- Replacement of knob and tube connections to the panel by installing junction boxes in the attic.
- Electrical service (200 amp) relocated to the north wall of the northwest first floor entrance alcove. Originally electrical service enter the house at the upper north gable end.
- New electrical panel installed, this replaced a previous panel dating to the electrical service location change.



Heating

Character-defining features

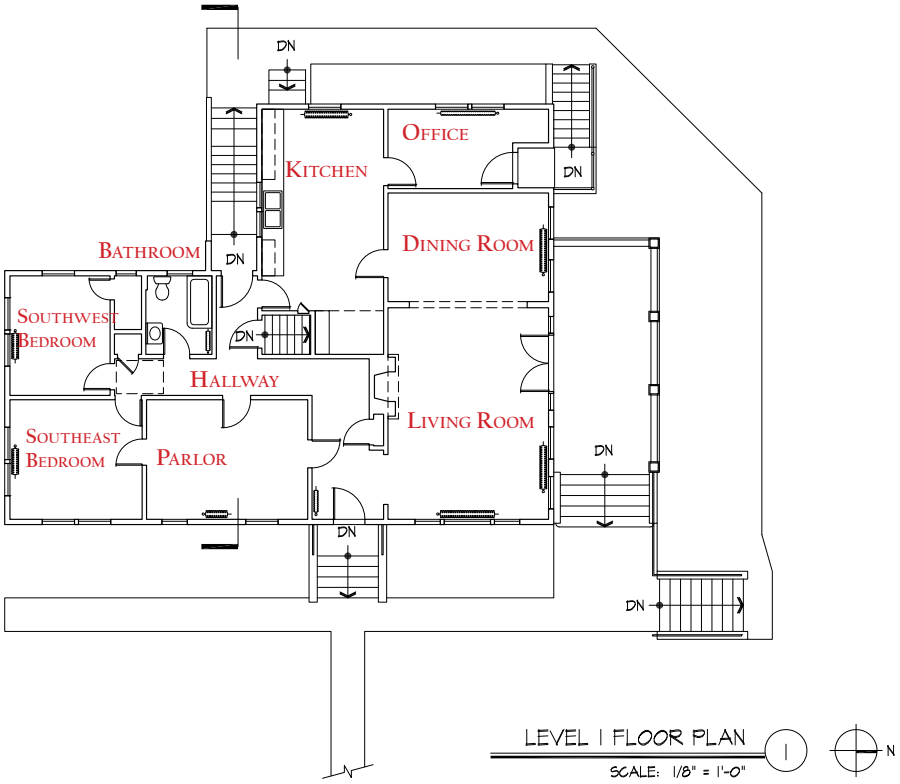
- Fireplace in the living room. Refer to living room for details.
- Chimney rising through the basement in the center of the house up through the ridgeline. The base consists of red brick with concave mortar joints. Brick corbels step out on the north side to support the cast in place concrete base for the hearth. This same profile continues up through the attic. The chimney is not lined. The exterior above the ridgeline features a harder, higher fired red brick. A series of soldier course bricks accent the top of the chimney with a second inner set of side-bedded bricks around the flue opening.
- Radiators: American radiator. Steam heat, each with 5 fins, Corto type. 32 inch long 20 inches tall 8 inches deep 1-1/2 inch thick coils. Each typically with 12 coils. Built up, painted. Supply lines run through the basement below the first floor and connect up to the radiators through the floor. In the basement a wall mounted unit is supported on the metal supply pipes run through the concrete wall.
- Recessed concrete area in the basement at the former oil-fired boiler location.
- Access cap in the concrete sidewalk, originally for filling the below grade oil tank.
- Metal supply and return lines for the radiators, approximately 1-1/2 inch diameter and wrapped in insulation.

Alterations

- Kitchen wood stove previously removed and a cover plate installed at the former chimney connection.
- Some minor changes on vents at individual radiator units.
- Oil tank added, No. L-821686, Axe tank and equipment company. Set up on concrete blocks. Two lines run in through the house. Added copper fuel lines through basement between this tank and the furnace.
- Oil furnace replaced with existing contemporary unit.
- Original exterior below grade oil tank (measured at approximately 500 gallons) cleaned and filled with foam in 2016. The tank is below the concrete sidewalk.

FIRST FLOOR

The first floor provides the living, entertaining, and food preparation spaces for the house. The L-shaped plan places more public functioning spaces at the corner, overlooking the Japanese Garden while private spaces are set back at the outer ends of the L. A central hallway leads from the east front entrance, connecting to core private and public spaces.



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MUKAI HOUSE MEASURED DRAWINGS
18017 107TH AVE SW, VASHON ISLAND, WA

19 AUGUST 2016

Common character-defining features

These are character-defining features that occur in multiple spaces on the first floor. They are listed here to facilitate quick reference during projects and to avoid repetition within each space. Where referenced in each space they are stated followed by the word typical.

- Door casings: stepped profile, mitered corners, run down to the floor with no plinth. The same design used on both sides of the doors. 3-1/2 inch total face with a 3/16 inch reveal along the jambs. Cyma recta at inner edge, 1-1/8 inch flat face, cyma recta at outer, ¾" face. Each cyma used to step up and out. Overall a Greek Revival style influence.
- Baseboard: 5-1/2 inches tall, with an eased top edge, and 5/8 inch thick. Quarter round molding at floor.
- Window casings: same casing as doors. These are the interior casings, refer to windows under exterior character defining features for exterior trim work. Mitered corners. Casings extend down and end at stool. Apron is flat face 2-7/8 inch wide, with convex base, and returned at the ends. Stool is 1 inch thick and extends 1 inch beyond casing outer edge. Convex detail along stool edge. The stool projects 2 inches from the wall face.
- Interior doors: Interior doors are all the same. Single, recessed panel type. Rail and stile construction. Painted white. Plywood center panel. Doug fir or similar materials. Cyma reversa profile along stiles and rails around panel. Nominally 4-1/2 inch wide stiles.
- Interior door hardware: All interior doors have glass knobs with one exception (there's one metal knob on the dining room side of the kitchen/dining room door). Knobs have a 2 inch face and a 2 inch diameter round escutcheon. Simple strike. Lever lock on escutcheon on interior side. Refer to exterior doors in the exterior character defining features catalog for their hardware. Door hinges, two per door, steel, each with 3 screws per hinge leaf.
- Wood flooring: All rooms except the kitchen and bathroom on the main floor have the same maple flooring, consisting of narrow 2 inch wide, tongue-and-groove flooring. See kitchen and bathroom sections for details on flooring in those rooms. Most of the rooms have flooring which is continuous across thresholds (i.e., there aren't really thresholds except at the bathroom). The transition between the kitchen flooring and the adjacent rooms is subtle, without a noticeable threshold.
- Wall finishes: Walls are wood lath and plaster, painted, with a light sanded finish. Light sanded finish originally evident in closets. The rooms have been painted so many times that the sand is not as sharp.
- Ceiling finishes: Ceilings are wood lath and plaster, painted, with a light sanded finish. The rooms have been painted so many times that the sand is not as sharp.
- Crown molding: a convex elliptical molding with beads above and below and running along the ceiling/wall joint, painted.
- Radiators: refer to heating for details.

Living Room

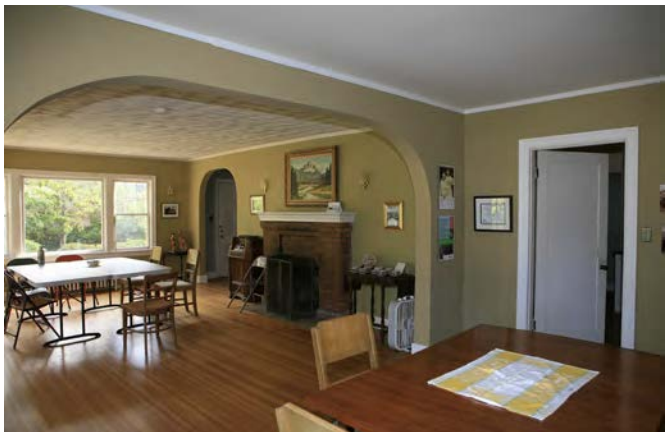
The largest room on the first floor. Windows along the east and north sides of this room afford views out to the Japanese garden, the road (east), and to the barreling plant (north). The dining room connects at the west end via a large arched opening. The front east entrance connects at the southeast corner via the hallway. A pair of French doors with side lites open to the north porch.

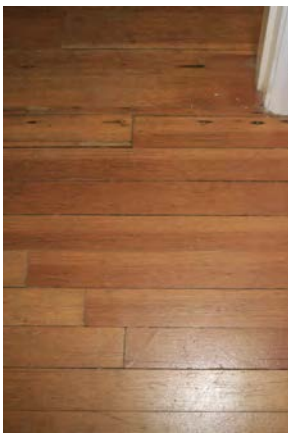
Character-defining features

- Wood flooring, typical.
- Crown molding, typical.
- Wall finishes, typical.
- Ceiling finishes, typical.
- Door casings, typical.
- Baseboard, typical.
- Window casings, typical.
- Overall volume.
- Radiators, typical. One each along exterior (north, east) walls and located under windows.
- Brick fireplace with a light green tile hearth, painted wood mantel, removable metal screen, andirons. The brick are a high fired, reddish/tan brick with dark flecks and are set in a dark gray mortar. The base and upper portions feature a convex brick molding.
- Open, round arched pass through doorways to hall and dining room.

Alterations

- Added scalloped finish at ceiling.
- Added wall mounted sconce light fixtures (7) with metal bases and frosted glass.
- Added ungrounded receptacles (4), locations may have been original but receptacles are later replacements.
- Grounded receptacle (1), location may have been original, but receptacle is contemporary.
- Thermostat for furnace, contemporary unit.
- Added wall switches (3), all with contemporary cover plates.





Dining Room

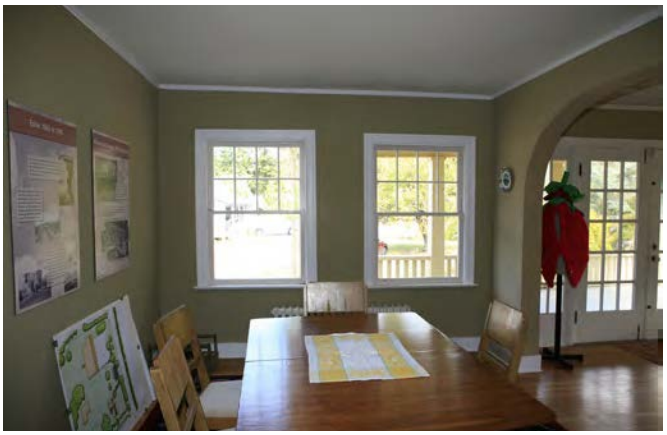
Located directly west of the living room, this space also connected directly with the kitchen. Windows at the north end provided day lighting. Originally a doorway on the west side opened to the office.

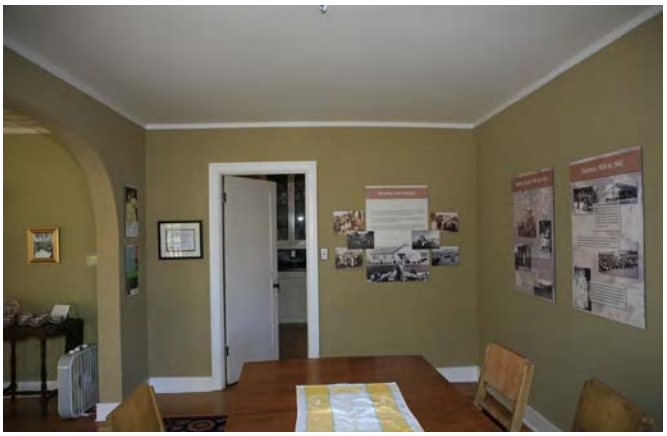
Character-defining features

- Wood flooring, typical.
- Wall finishes, typical.
- Door casings, typical.
- Baseboard, typical.
- Window casings, typical.
- Overall volume.
- Interior door, typical.
- Interior door hardware, round metal knob on the dining room side of the kitchen door.
- Radiator, typical. Located under north windows.
- Open, round arched pass through to dining room.
- Crown molding, smaller profile and without the larger convex molding portion in the living room.

Alterations

- Added portions of crown molding wraps the room. Painted, wood.
- New sheet rock ceiling added over plaster. The north portion has lost all plaster above sheet rock in outer north 2 feet likely from water damage.
- Infill of the former doorway in the west wall and addition of baseboard at this location.
- Removal of window aprons.
- Added 1 ungrounded receptacle with a contemporary cover plate.
- Added 1 new switch with a burnished plate.





Kitchen

Located in the southwest corner at the back of the house this space provided an important function. The space connected to the office, dining room, and hallway. The general layout consisted of sink, counter, and cabinets along the south wall with the stove and cooking area in the northeast corner adjacent the chimney.

Character-defining features

- Door casings, typical.
- Baseboard, typical.
- Window casings, typical.
- Overall volume.
- Interior door, typical.
- Interior door hardware, typical.
- Wood flooring consisting of wider (3-3/8" wide) Doulgas fir boards that are not used elsewhere in the house.
- Radiator, typical. Located under west window.
- Built in cupboards over counter. Leaded glass on doors. Wood portions painted. Rounded arch brackets connect upper cupboards with wall.
- Wall mounted historic light fixture with pull chain over the sink, south wall.
- Original wood ironing board, stored in wall cubby with a wood door. The cubby door is a smaller version of the typical interior doors. Glass knob pull. Casings around this door are the typical casings but flipped in orientation to place the thicker profile adjacent the opening in order to frame this opening as a cabinet.
- Built-in wood bench seat with flip top, interior storage. Painted. Across from stove, at the east end of room. Bench is original, the original flooring does not run under it.
- Built in cabinets below the counter consisting of drawers and cupboards. Below cabinets the baseboard is unfinished at the west end, same with the floor, unpainted down to first door.
- East ceiling originally sloped up about 22 to 24 inches to the chimney. Later alterations framed in a lower ceiling and clad it with sheet rock.
- Original electrical outlet on the east side of the kitchen behind the door. New plate.

Alterations

- Replacement counter is plywood.
- Apron missing on west window.
- At the lower cabinets, the three doors at the west end are later additions. These doors occur where the floor is painted.
- Due to a previous roof failure and water damage in the space, sheet rock was installed over the lath and plaster on the west, north, and east walls of the space. The entire ceiling was replaced with sheetrock. The crown molding that wraps the space is a contemporary addition. R19 fiberglass insulation installed above the ceiling.
- Added metal sink.
- Added electrical outlets (3).
- Galvanized metal pipe in the northeast corner, not known what this connected to.
- Added light switches (2).

Office

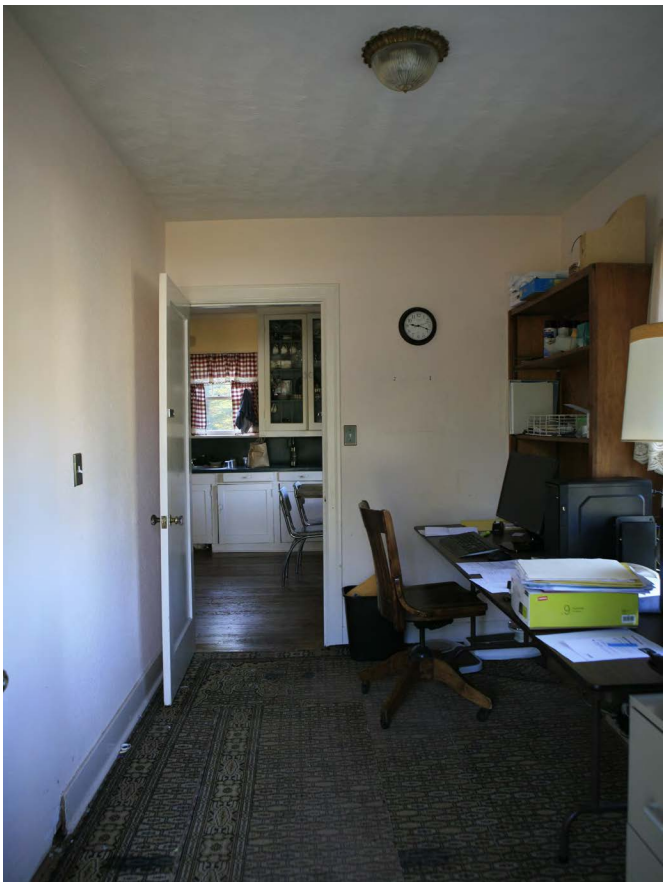
Located in the northwest corner of the house, this space served as a passageway supporting the northwest exterior entrance and then later as an office entry to the house. Originally a doorway on the east side of the space provide direct connection to the dining room without having to pass through the kitchen. The recessed northwest entrance creates a small alcove in the outer northwest corner of this space.

Character-defining features

- Wood flooring, typical.
- Wall finishes, typical.
- Door casings, typical.
- Baseboard, typical.
- Window casings, typical.
- Overall volume.
- Interior door, typical.
- Interior door hardware, typical.
- Radiator, typical. Located under west windows.

Alterations

- Added scalloped finish at ceiling. The north portion of the ceiling was also replaced with sheet rock due to water damage. Some of the original lath and plaster remains at the south end. R19 fiberglass insulation installed above a portion of the ceiling.
- Contemporary ceiling light fixture.
- Sheet rock installed on the south, west, and north walls over the lath and plaster and at the infilled doorway on the east wall.



Hallway

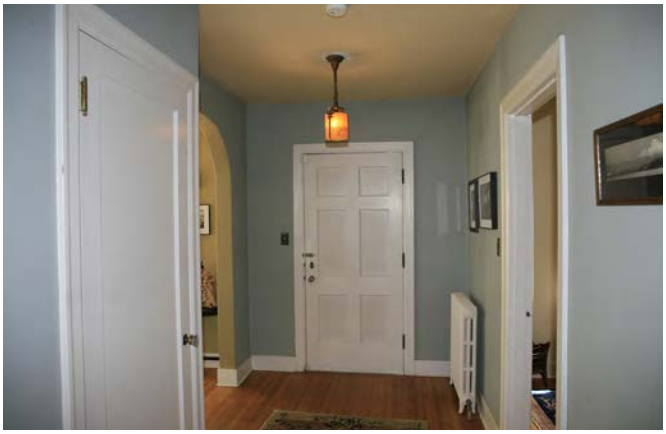
The hallway connects the main east entrance with the Living Room, Parlor, bedrooms, bathroom, kitchen, and west entry. The hallway extends throughout the center of the floor plan.

Character-defining features

- Wood flooring, typical.
- Wall finishes, typical.
- Ceiling finishes, typical.
- Door casings, typical.
- Baseboard, typical.
- Window casings, typical.
- Overall volume and width.
- Interior doors, typical.
- Interior door hardware, typical.
- Painted wood attic access hatch at south end of hallway ceiling.
- Open, arched pass through to Living Room.
- Extra tall radiator, unique among those on the main floor, located at east entry vestibule. A match to this radiator is in the garage.
- Hall closet in north wall, near east entry with wood shelves and coat rack bar, same wood floor as hallway door. Original door with typical hardware.
- Built in linen cupboard and drawers between bathroom and west bedroom. Two drawers and one cabinet, painted.
- Original outlet (1) along the east side of the hallway, plate is burnished metal.
- Original switches, Arrow brand and metal plate (2), one in hall the other at the front entry vestibule, each goes to the overhead fixture they are near.
- Ceiling lights (2) both original.

Alterations

- Door bell removed from upper wall adjacent basement door wires remain.
- Repainting at north end at past water damage, with a portion of the baseboard removed.
- New light fixture at the entry vestibule at the former original location a suspended ceiling light fixture, with a cylindrical glass shade, hand painted.
- Switch adjacent east entry door is new and new plate, switches exterior lights flanking entrance.



Parlor

Located along the east side of house, this room overlooks the Japanese garden and front lawn. Two doorways onto the hallway, one into a bedroom. Windows along the east wall provide day lighting.

Character-defining features

- Wood flooring, typical.
- Wall finishes, typical.
- Ceiling finishes, typical.
- Door casings, typical.
- Baseboard, typical.
- Window casings, typical.
- Overall volume.
- Interior doors, typical.
- Interior door hardware, typical.
- Radiator, typical, along east wall between windows.

Alterations

- Added decorative, scalloped plaster ceiling finish over original lath and plaster.
- Added outlets (2) with new plastic plates, duplex grounded.
- Two added ceiling fixtures with frosted glass.
- Wall switch for ceiling light at north end, contemporary, burnished metal plate.
- Phone data connect box on baseboard.

Southeast Bedroom

Located at southeast corner of the house, this room has a view of the front lawn and Japanese garden. Doorways from the room open to the parlor and hallway. Windows on the east and south sides of the room provide day lighting.

Character-defining features

- Wood flooring, typical.
- Wall finishes, typical.
- Ceiling finishes, typical.
- Door casings, typical.
- Baseboard, typical.
- Window casings, typical.
- Overall volume.
- Interior doors, typical.
- Interior door hardware, typical.
- Radiator, typical.
- Historic ceiling mounted light fixture. White opaque globe, presumed glass, painted flower decoration.

Alterations

- Scallop ceiling added after light fixture installed. If done originally would have kept fixture off and the installed. Can clearly see in this room with plaster overlap onto fixture sides.
- Radiator: supply pipe through wood but no cover escutcheon at return same issue.
- Switch: 1 new (overhead fixture).
- Outlets: (1) metal cover plate, burnished finish, duplex grounded, on north wall and (1) metal cover plate, duplex ungrounded, metal plate.

Southwest Bedroom

Located at southwest corner of the house. Doorway onto hallway, typical interior door. This is the most private bedroom and the only one with a closet.

Character-defining features

- Wood flooring, typical.
- Wall finishes, typical.
- Ceiling finishes, typical.
- Door casings, typical.
- Baseboard, typical.
- Window casings, typical.
- Overall volume.
- Interior doors, typical.
- Interior door hardware, typical.
- Radiator, typical.
- Historic ceiling mounted light fixture. White opaque globe, presumed glass, painted flower decoration.
- Closet, with typical interior door and a 6:1 window. Closet light is just a wire run through the ceiling with a socket and compact fluorescent light bulb. Wood coat rail along all sides at 63 inches above the floor, with a 3-1/2 inch face.

Alterations

- Closet: added metal brackets along north side and associated shelf. Plumbing access cut out in north wall and patched with sheet rock. Interior escutcheon missing in closet door.
- Damage to plaster from door knob impact.
- Some markings in floor from furniture, dresser has small wood wheels that can scratch floor
- Outlets: duplex, grounded, new (3) bottom of lower receptacle 14-1/2 inches above floor.
- Switches: 1 new (overhead fixture).

Bathroom

Located at ell along the west side of the house. A window in the west wall provides day lighting.

Character-defining features

- Wall finishes, typical.
- Ceiling finishes, typical.
- Door casings, typical.
- Window casings, typical.
- Overall volume.
- Interior doors, typical.
- Interior door hardware, typical.
- Radiator, typical.
- Medicine cabinet above sink, with a painted stool and casings. The casings are the original typical casings, but flipped in orientation to frame this as a cabinet. Wood sash door, painted, with a mirror as the panel and a glass knob for opening. Two butt hinges.
- Central, ceiling mounted light fixture with porcelain base and glass shade.
- Two towel rods and one toilet paper holder – enameled metal.
- Wall mounted sink enameled cast iron sink with separate hot and cold water taps and integral backsplash.
- Cast iron, enameled metal tub and associated metal curtain rod.
- Wall mounted light fixture over sink, three bulbs, individual glass shades, Art Deco style with the light switch adjacent.

Alterations

- Contemporary tile floor and tile wainscot.
- Added hooks mounted to wainscot cap.
- Added wood cap at tile wainscot wood trim.
- Contemporary toilet.
- Ring type towel holder.
- Switch (3) contemporary, switch by doorway appears original, had to cut wood wainscot cap when added tile wainscot and cap.
- Outlets (1) GFI added.

Attic

The attic provided storage and access for wiring and expansion tanks for the steam heating system. This is a utilitarian space.

Character-defining features

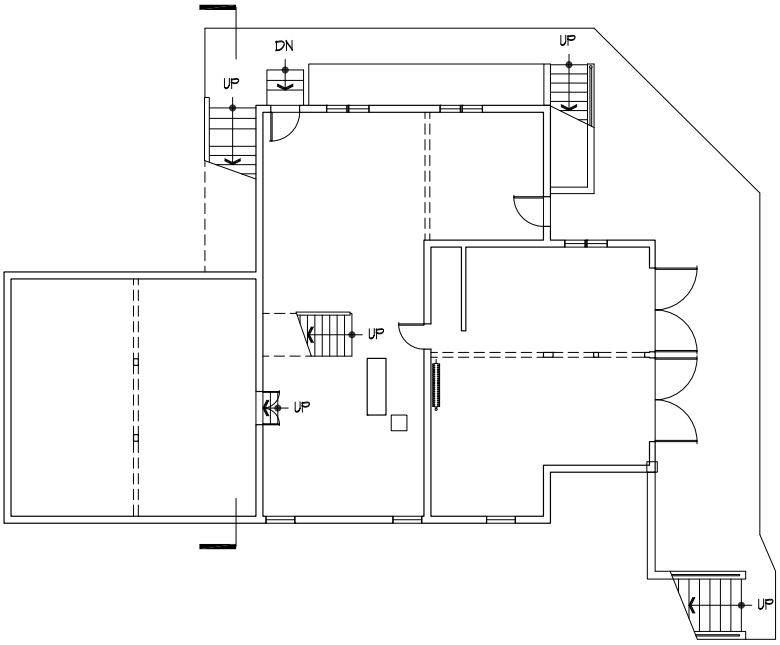
- Doug fir floor in the south end of the attic, 3-1/4 inch face tongue and groove installed on joists.
- Skip sheathing, 1 by 5-1/4 inches with 2-3/4 inch space between boards.
- Rafters, 2 by 4 inch with 1 by 5-1/2 inch collars and along the ridge.
- Floor joists, 2 by 6 inch on 16 inch centers
- Valley framing, 2 by 6 inch boards.
- Gable end wall sheathing, horizontal 1 by 7 inch boards.
- Water tanks (2) related to the steam heating system, having a 150 lbs working pressure extra heavy, located to the east and west of the chimney.

Alterations

- Ridge vent with building wrap cover installed as part of reroofing the building in 2016.
- Plywood sheathing installed as part of the 2016 reroofing.
- Fiberglass insulation (R19) added over the kitchen between the joists.
- White water tank and associated piping south of the chimney.
- Light fixtures added in the south and north end to provide illumination.

BASEMENT

The basement provided storage space for the building, a utilitarian bathroom, laundry area, and parking for two cars.



BASEMENT FLOOR PLAN
SCALE: 1/8" = 1'-0"

N

South End

The south end, unlike the north end, was not fully excavated. Consequently, the low ceiling height limits this space to storage functions. The only access point is from a doorway at the north end that opens to the north area.

Character-defining features

- Concrete slab, thin, throughout the space.
- Wood 5-1/5 by 7-1/4 inch posts (2) supporting the wood 5-1/5 by 7-1/4 inch beam spanning the space between the concrete walls and supporting the main floor. No visible vertical anchor concrete pads which are elevated above main slab and no connection where support beam. Beam is single wood piece across full span.
- Concrete foundation walls exposed, showing board forms.
- Double doors original with lath and plaster adjacent providing access to the south end from the north end, with a 5 by 5-inch beam spanning the opening and carried on 2 by 6 studs.
- Joists, 2 by 10 inch joists on 16 inch centers with diagonal sub flooring.
- No foundation bolts evident.
- Electrical line for light post went out through southeast corner of basement through the foundation wall just above the footing.

Alterations

- Patch at lower west corner of north opening in the concrete.
- Void in southeast corner 6 by 7-inch with soil exposed. Thin slab just ½ thick at this location.
- Water entry at footing level along south side.

North End

This served as the more regularly accessed portion of the basement with connection to the south area for storage, the garage off the northeast corner, and a bathroom in the northwest corner. Multiple doors provided access to the exterior on the north and west facades. Windows in the east and west walls provide day lighting.

Character-defining features

- Wood stairs from hallway down to basement. Typical interior door at top of stairs. Storage space below the stairs with a plywood door on the east side of the stairs.
- Concrete foundation walls exposed, with a thin parging layer applied.
- Brick chimney portion within the basement, with the chimney clean out on south side at base, concrete deck cantilevered out under hearth.
- Floor joists, 2 by 10 inch floor joists on 16 inch centers.
- Sub floor sheathing 1 by 7 inch diagonal sheathing same as used on gable ends with lap at edges and diagonal bridging between joists. This sub flooring was originally used as part of the form work for the concrete foundation walls and then repurposed for sub flooring.
- Concrete slab floor poured in place with recessed area at original boiler location with feed and return lines (½ inch diameter) coming up through floor from original oil tank.
- Electrical conduit (¾-inch diameter) installed originally and set in concrete off southeast corner of chimney, possibly connecting to the exterior light standards.
- Walls around the garage consisted of reinforced concrete with parging and painted. Floor joists bear on these walls. A wood beam, 5-1/2 by 7 inches extends off the west end to pick up the floor joists under the office. The beam laps 7 inches onto concrete wall.
- Utility sink original, concrete carried on metal pipe legs set in original concrete.
- Bathroom in basement original to basement. Wood partitions and stall door are original.
- Sheet rock ceiling, originally had ¼ inch sheet rock with wood particles this sheet rock extended through full basement and there are parts left around including a full sheet above the built-in pantry at the stairs.
- Pantry cabinet in basement is original. Built in with two lower doors with two upper glass doors. Footed for ventilation below. Glass knobs. The unit is 17 by 33 and 84 inches tall.

Alterations

- Trench added, 18-inces wide along the basement from the north door, runs south and T's at the door with branch running to the west basement door and the drain in the base of that door. The other runs east.
- Water heater adjacent utility sink.

Garage

Character defining features

- Sheet rock ceiling with wood particles with cove molding.
- Radiator on south wall, wall mounted instead of floor but same design as typical, the pipes are set in concrete and support it. No parging behind it.
- Concrete slab floor.
- Center beam is original the original paint and cove molding visible on the west side of the beam.
- Door to garage is original 3 lower panels and one large upper panel.

Alterations

- Added base board around east side of space, had carpet at one point over concrete.
- Trenching in floor along north and the. Line running south along east side that continues along south edge. Reason unknown.
- Hole through west wall for four receptacle outlet.
- Added center beam and pressure treated 6 by 6 inch posts.
- Added 2 by 6 inch frame wall, pressure treated, along east wall to pick up east end of porch joists which are deteriorated due to water exposure.
- Rebuilt garage door frame as part of trenching. Installed 5 by 7 inch posts at ends and center post with new pressure treated header.
- Chiseled out track on west side of center beam and part of roll up garage door track remains. No track on other side but have makes where track used to be.
- New wall on south end set up on concrete spacers and new studs and new sheet rock.
- New light fixtures added in 1960s to 1970s.

Paint Analysis

The following historic paint analysis report completed in February of 2017 provides an in depth understanding of the original exterior and interior color scheme employed for the house, with additional information on the barreling plant and the agricultural equipment shed.

Mukai House

Historic Paint Analysis Report
February 2017

Prepared for: Artifacts Consulting
Prepared by: Julianne Patterson, Seattle, WA

TABLE OF CONTENTS

INTRODUCTION

This report was prepared by Julianne Patterson for Artifacts Consulting and the Friends of Mukai. The purpose of this report is to identify, explain and document layers of exterior and interior paint finishes at the Mukai House, Shed and Barreling Plant on Vashon Island, WA. Taken in their historic context, the samples serve to illustrate the material and colors that were used as applied finishes through the building's history.

SAMPLE LOCATIONS

Samples were taken over two dates: September 20, 2016, and December 3, 2016.

METHODOLOGY

Paint samples were collected using a surgical scalpel with a #15 blade in locations that appeared to have intact, visible layers of paint. Areas subjected to the least possible exposure were identified for sampling. Samples were also taken in locations where cracks already existed when possible.

A total of 242 samples were taken from more than 60 locations in and around all three buildings. Each sample was inspected at the site and placed in a polyurethane bag. Each sample was labeled using an annotation system created for the project.

At the lab, each sample was examined in an unmounted state under a stereo microscope at 20x, 40x and 80x magnification. 156 samples that best represented the group were selected from the original 242. Each sample was then encased in resin, with the substrate facing down and modern layer placed up. The hardened samples were then hand polished using varying grits of micromesh sanding papers to expose a cross section of each sample.

Each cross section was observed, photographed, and analyzed under the microscope using a supplemental light source daylight equivalent of 3200 Kelvin. Color matching was conducted under visible light using Benjamin Moore equivalents. This report includes analysis of select samples that represent the key areas of the three buildings.

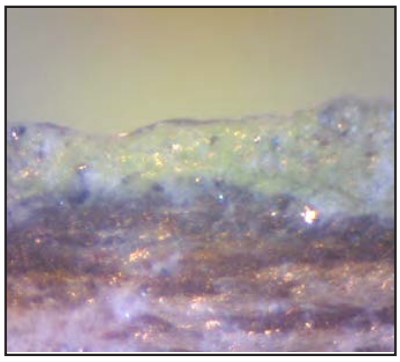
MHND3

Location: Mukai House Exterior
Elevation: North
Detail: Exterior stile of garage door

Number of Layers: 1

LAYER DESCRIPTION
Substrate: wood
1. thick, uneven (BM 395 Apples and Pears)

Note: Limited layers suggest newer/replacement door.

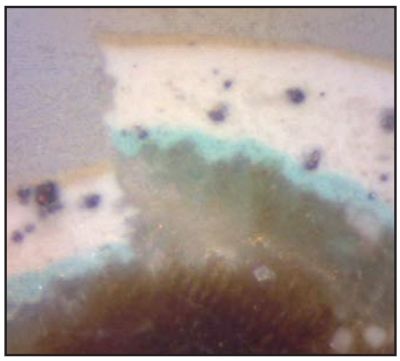


80x Magnification

MHN-DET(5)

Location: Mukai House
Elevation: North
Detail: Porch ceiling

Number of Layers: 3
LAYER DESCRIPTION
Substrate: wood
1. thin (BM 619 Copper Patina)
2. thick, black voids (BM OC-69 White Opulence)
3. very thin, smooth (BM HC-29 Dunmore Cream)



80x Magnification

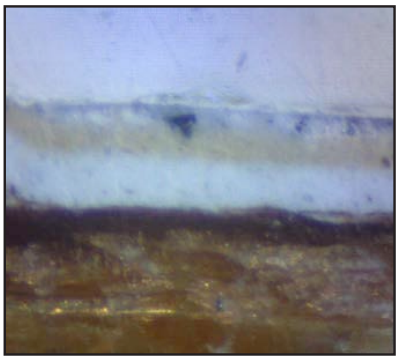
MHE-DET2

Location: Mukai House Exterior
Elevation: East
Detail: Window Entry door hood

Number of Layers: 3

LAYER DESCRIPTION
Substrate: wood
1. thick layer of brown varnish/stain
2. thick, smooth layer (BM OC-69 White Opulence)
3. Thin, smooth (BM 178 Golden Lab)

Note: Original finish appears to be a wood stain.



80x Magnification

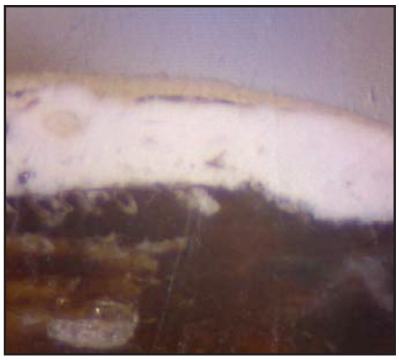
MHW-DET 1

Location: Mukai House
Elevation: West
Detail: Fascia

Number of Layers: 2

LAYER DESCRIPTION
Substrate: wood
1. Thick, smooth (BM OC-69 White Opulence)
2. Thin, smooth (BM 178 Golden Lab)

Note: Lack of paint layers is surprising, although may be explained by the sheltered nature of the sample location. Other explanations are in-kind replacement or multiple, indistinguishable layers of white paint.



80x Magnification

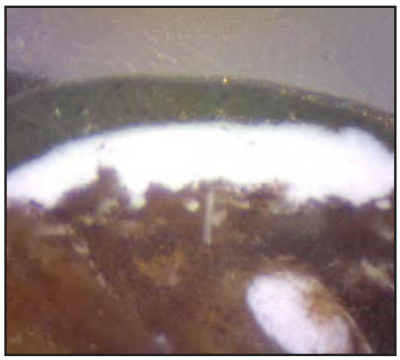
MHED1

Location: Mukai House Exterior
Elevation: East
Detail: front door

Number of Layers: 2

LAYER DESCRIPTION
Substrate: wood
1. thick, likely primer
2. thick, smooth (BM 476 Jade Romanesque)

Note: Only two visible paint layers is surprising and may indicate this door is an inkind replacement. The patern and profile of the paneling matches historic photographs, but even sheltered behind a screen door as it was originally, it would have needed to be painted more than once or twice in its nearly 100 year history. Alternatively, it may have been scraped and sanded prior to the most recent paint campaign.



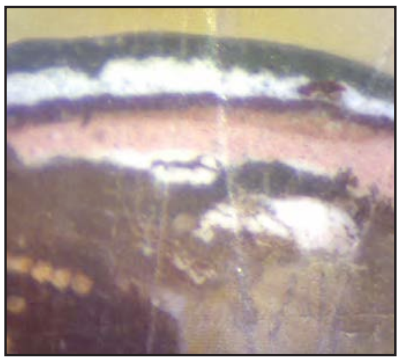
80x Magnification

MHND2

Location: Mukai House
Elevation: North
Detail: basement door

Number of Layers: 6

LAYER DESCRIPTION
Substrate: wood
1. thick, BM 053 (Crazy for you)
2. thin, BM 111 (Rio Rancho Clay)
3. thin, BM HC-64 (Townsend Harbor Brown)
4. thick, wavy layer of white primer
5. thick, smooth, BM 700 (Enchanted Forest)
5. thin, smooth, BM 476 (Jade Romanesque)



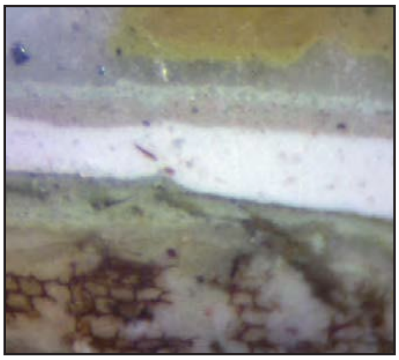
80x Magnification

MHNS1

Location: Mukai House Exterior
Elevation: North
Detail: siding (under covered portico)

Number of Layers: 7

LAYER DESCRIPTION
Substrate: wood
1. Rough, uneven (BM HC-115 Georgian Green)
2. Rough, uneven (BM 480 Lilly Pad)
3. Rough, uneven (BM 430 Landscape)
4. Thick, smooth layer of primer
5. Thin (BM HC-108 Sandy Hook Gray)
6. Very thin (BM HC-120 Van Alen Green)
7. Very thin, uneven (BM 395 Apples and Pears)



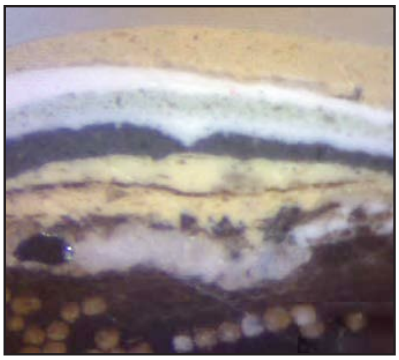
80x Magnification

MHWC1

Location: Mukai House
Elevation: West
Detail: Window casing/trim

Number of Layers: 7

LAYER DESCRIPTION
Substrate: wood
1. thin, uneven layer (BM 178 Golden Lab)
2. thin, uneven layer (BM OC-108 Pale Moon)
3. smooth (BM 1610 French Beret)
4. thin, smooth (BM OC-46 Halo)
5. thin, several voids (BM OC-48 Hazy Skies)
6. smooth layer of paint or primer (BM OC-69 White Opulence)
7. thick, smooth (BM 331 Lemon Souffle)



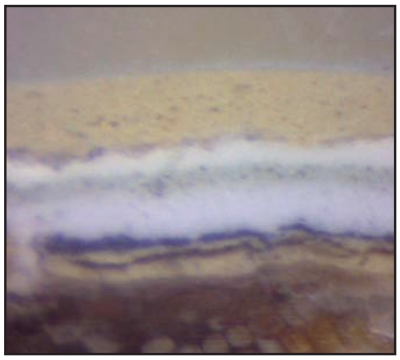
80x Magnification

MHEW1

Location: Mukai House Exterior
Elevation: East
Detail: Window sash

Number of Layers:

LAYER DESCRIPTION
Substrate: wood
1. thin, uneven layer (BM 178 Golden Lab)
---dirt layer---
2. very thin, uneven layer (BM OC-108 Pale Moon)
3. thin, uneven (BM 1610 French Beret)
4. thick, smooth (BM OC-46 Halo)
5. thin, several voids (BM OC-48 Hazy Skies)
6. smooth layer of paint or primer (BM OC-69 White Opulence)
---thin dirt layer---
7. thick, smooth (BM 331 Lemon Souffle)



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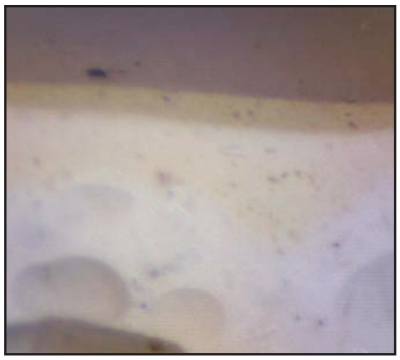
MHN-DET 4

Location: Mukai House
Elevation: North
Detail: Column capital

Number of Layers: 2

LAYER DESCRIPTION
Substrate: plaster?
1. Thick, large voids (BM OC-69 White Opulence)
2. Thin, smooth (BM 178 Golden Lab)

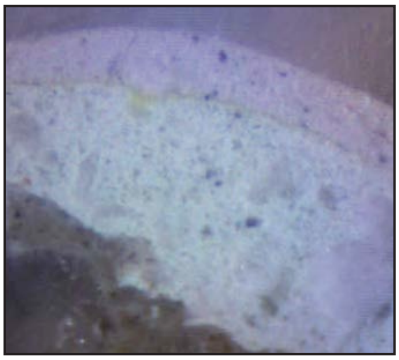
Note: Blocked column capital appears to be made up of a plaster-like material over wood. Lack of paint layers is surprising, although may be explained by the sheltered nature of the sample location. Other explanations are in-kind replacement or multiple, indistinguishable layers of white paint.



80x Magnification

MHNS2

Location: Mukai House Exterior
Elevation: North
Detail: Window basement level siding/foundation



80x Magnification

Number of Layers:

LAYER DESCRIPTION
Substrate: concrete
1. Thick, several voids (BM OC-49 Titanium)
2. Thick, several voids (BM OC-52 Gray Owl)

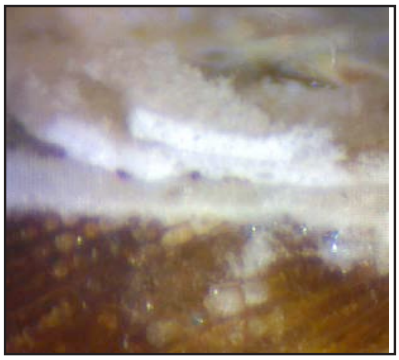
Note: Lack of layers suggests the basement level concrete foundation was originally unpainted for a significant period of time.

BP-W

Location: Barreling Plant
Elevation: East
Detail: window sash

Number of Layers: 4

LAYER DESCRIPTION
Substrate: wood
1. thin (BM OC-46 Halo)
2. thin, smooth (BM 1509 Spanish Olive)
3. thin, smooth (BM OC-49 Titanium)
4. thin, small voids (BM OC-69 White Opulence)



80x Magnification

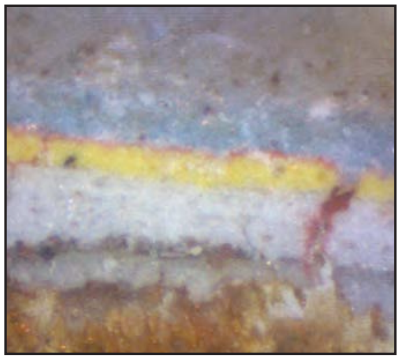
BP-S

Location: Barreling Plant
Elevation: East
Detail: Siding

Number of Layers:

LAYER DESCRIPTION
Substrate: wood
1. uneven, thin (BM 1586 Silver Mink)
---dirt layer---
2. small voids (BM 1612 Pelican Gray)
3. smooth (BM 1611 Gray Tint)
4. smooth (BM 293 Showtime)
5. extra thin (BM 005 Tuscan Coral)
6. smooth (BM CW-590 Williamsburg Wythe Blue)
---high contrast dirt layer lying on top of sample---

Note: All layers show high levels of dirt, grime and weathering. Red layer is surprisingly thin in this sample, although still visible.



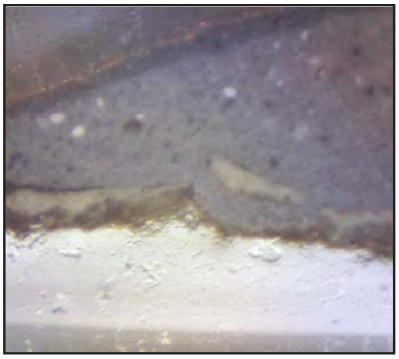
80x Magnification

SHED-S

Location: Mukai Shed Exterior
Elevation: South
Detail: Siding fragment

Number of Layers: 2

LAYER DESCRIPTION
Substrate: wood (not visible in sample image)
1. thin, partial layer (BM 977 Brandon Beige)
2. very thick (BM 1593 Adagio)



80x Magnification

Note: Unable to collect viable sample from Shed windows while on site due to a lack of existing paint.

INTERIOR ROOM NUMBERING SYSTEM

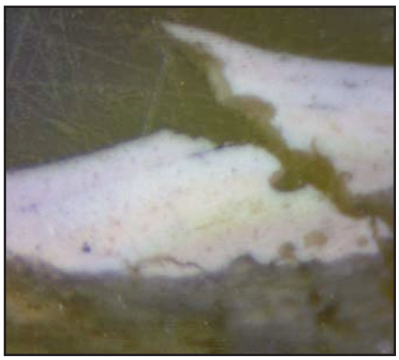
MHI9E1

Location: Mukai House Interior
Room: 9
Detail: wall elevation

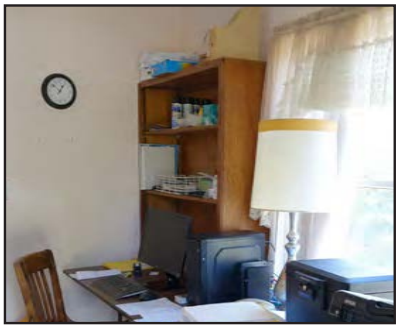
Number of Layers: 4

LAYER DESCRIPTION
Substrate: plaster, several voids
1. smooth, BM 282 (Counting Stars)
2. smooth, BM 143 (Golden Light)
3. thin, very smooth, BM OC-70 (Whitewater Bay)
----(dirt layer)----
4. smooth, uniform, BM OC-81 (Evening White)

Note: Original layer is a stained plaster.



80x Magnification

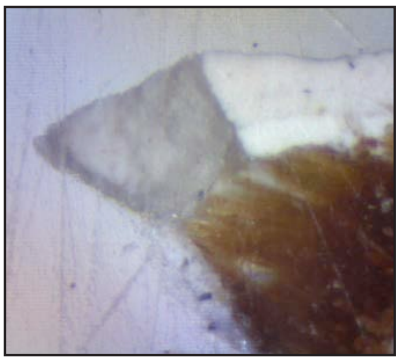


MHI9D1

Location: Mukai House Interior
Room: 9
Detail: door

Number of Layers: 2

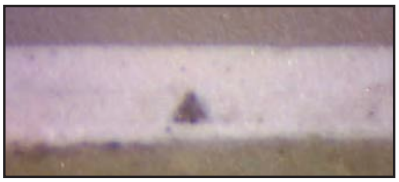
LAYER DESCRIPTION
Substrate: wood
1. thin, smooth (BM OC-69 White Opulence)
2. thick, smooth (BM OC-105 Calming Cream)



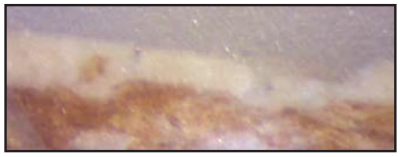
80x Magnification

MHI9B1

Location: Mukai House Interior
Room: 9
Detail: baseboard



Number of Layers: 3

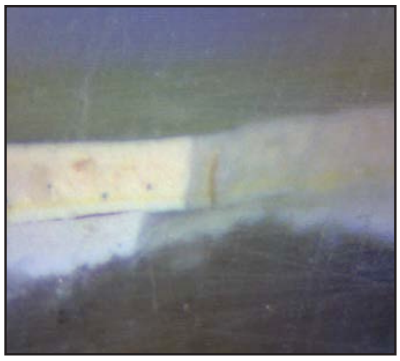


80x Magnification

LAYER DESCRIPTION
Substrate: wood (sample in 2 fragments)
1. smooth (BM 1039 Stone House)
2. very thin (BM 254 Woven Jacquard)
3. thick (BM OC-105 Calming Cream)

MHI8E2

Location: Mukai House Interior
Room: 8
Detail: wall elevation



Number of Layers: 3

80x Magnification

LAYER DESCRIPTION
Substrate: plaster
1. Very thin, smooth (BM OC-18 Dove Wing)
2. Very thin, smooth (BM-319 Dalila)
3. Thick, smooth (BM 297 Golden Honey)

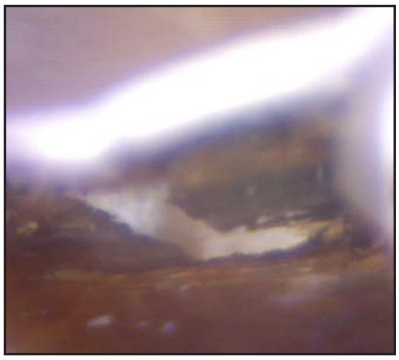
MHI8_DET1

Location: Mukai House Interior
Room: 8
Detail: outside of cabinet

Number of Layers: 2

LAYER DESCRIPTION
Substrate: wood
1. thin, flaky, shiny wood varnish
2. Thin, smooth layer (BM OC-69 White Opulence)

Note: Although difficult to capture in the sample image, it's clear the original finish was a brown, non-opaque, wood varnish. The sample was taken from existing splits in the cabinet wood.



80x Magnification

MHI8C1

Location: Mukai House Interior
Room: 8
Detail: ceiling

Number of Layers: 2

LAYER DESCRIPTION
Substrate: gyp board
1. smooth (BM OC-105 Calming Cream)
2. smooth, few voids (BM OC-69 White Opulence)

80x Magnification

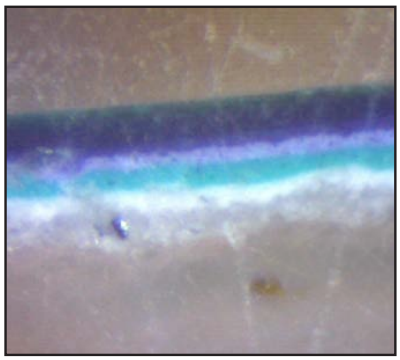
MHI8_DET6

Location: Mukai House Interior
Room: 8
Detail: back splash

Number of Layers: 5

LAYER DESCRIPTION
Substrate: thin, manufactured wood product
1. Very thin (BM OC-69 White Opulence)
2.Very thin, smooth (BM 740 Harbor Side Blue)
3. Very thin, small voids (BM 817 Brazilian Blue)
4. Thick, smooth (BM 1421 Bistro Blue)
5. Very thin (BM 735 Deep Sea Green)

Note: The backsplash is a manufactured wood veneer product tacked to the wall. There's no way to know from the sample if it is original to the kitchen, or installed at a later date.



80x Magnification

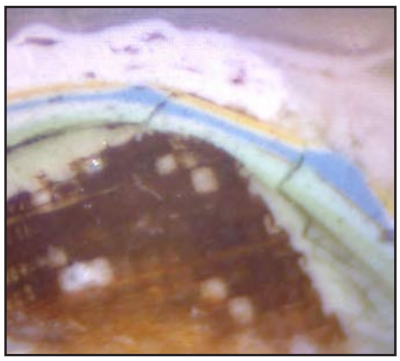
MHI8D4B

Location: Mukai House Interior
Room: 8
Detail: door

Number of Layers: 9

LAYER DESCRIPTION
Substrate: wood
1. uneven, broken layer (BM 429 Garland Green)
2. thin, smooth (BM 431 Central Park)
3. thin, smooth (BM 422 New Retro)
---very thin dirt layer---
4. thin, smooth (BM 781 St. Lucia Skies)
5. very thin layer of white primer
6. thin, smooth (BM 265 Gemstone)
7. smooth (BM OC-69 White Opulence)
8. smooth (BM OC-69 White Opulence)
9. uneven, smooth (BM OC-69 White Opulence)

Note: The built-in ironing board cabinet in the kitchen had a similar chromochronology, with the "Garland Green" color still intact on the interior.



80x Magnification

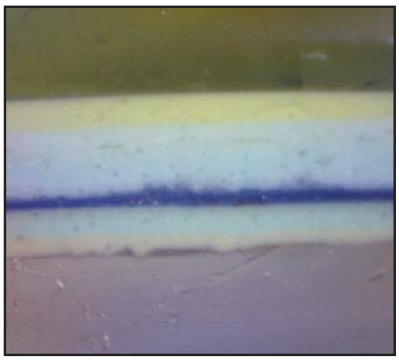
MHI7E1

Location: Mukai House
Room: 7
Detail: wall elevation

Number of Layers: 6

LAYER DESCRIPTION
Substrate: plaster
1. thin, plaster (BM 1110 Tawny Bisque)
2. smooth, uniform, BM 548 (Pastel Green)
3. thin, BM 812 (Blueberry Hill)
4. thick with small voids, white primer
5. very thin, smooth layer over primer, BM OC-17 (White Dove)
6. very uniform, smooth, BM 347 (Sunshine on the Bay)

Note: Substrate is a tinted plaster



80x Magnification

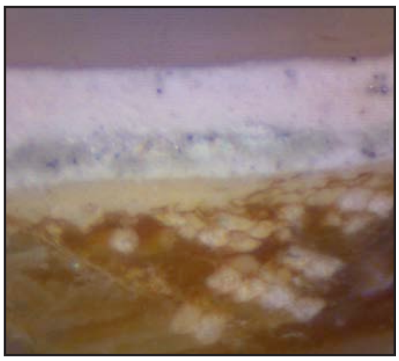
MHI7B1

Location: Mukai House Interior
Room: 7
Detail: Wall trim

Number of Layers: 4

LAYER DESCRIPTION
Substrate: wood
1. smooth (BM 323 Lightning Bolt)
2. rough, several voids (BM OC-72 Pink Damask)
3. thin (BM OC-69 White Opulence)
4. few voids (BM OC-69 White Opulence)

Note: This sample was taken from the wall trim at chest height. The number of layers do not match other layers taken from the medicine cabinet, door or window indicating it was installed at a later time, although still relatively early.



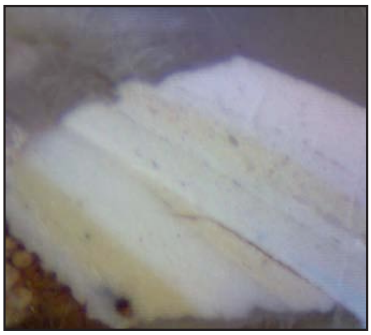
80x Magnification

MHI7D14

Location: Mukai House Interior
Room: 7
Detail: door

Number of Layers: 8

LAYER DESCRIPTION
Substrate: wood
1. very thin (BM OC-105 Calming Cream)
2. smooth (BM 323 Lightning Bolt)
3. thick, smooth, maybe primer (BM OC-69 White Opulence)
4. thin (BM 331 Lemon Souffle)
4. thin layer of white primer
5. smooth (BM OC-72 Pink Damask)
6. thin layer of white primer
7. several voids (BM OC-112 Goldtone)
8. thick, smooth (BM OC-69 White Opulence)



80x Magnification

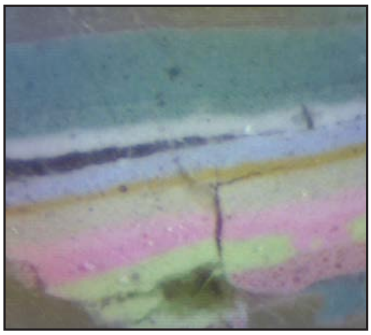
MHI6E1

Location: Mukai House Interior
Room: 6
Detail: elevation

Number of Layers: 9

LAYER DESCRIPTION
Substrate: plaster
1. thin, several voids (BM 067 Del Ray Peach)
2. very smooth and uniform (BM 396 Chic Lime)
3. very smooth and uniform (BM 1270 Tara)
4. thick, semi smooth (BM 254 Woven Jacquard)
5. very thin (BM 293 Showtime)
6. smooth, uniform (BM 820 Misty Blue)
7. thin, smooth layer of white primer
8. thin, smooth (BM 621 Eucalyptus)
9. thick, smooth (BM 621 Eucalyptus)

Note: The original layer is a tinted plaster similar to what was used in rooms 4 and 5. The lime green and pink color scheme is wild! I've never seen anything like it.



80x Magnification

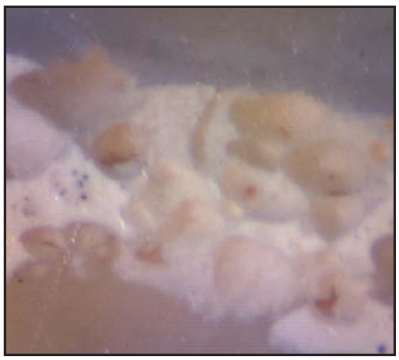
MHI6C1

Location: Mukai House Interior
Room: 6
Detail: ceiling

Number of Layers: 1

LAYER DESCRIPTION
Substrate: plaster
1. tinted/painted plaster, large voids (BM OC-79 Old Fashioned Peach)

Note: The ceiling is a tinted, decorative plaster finish in the original color.



80x Magnification

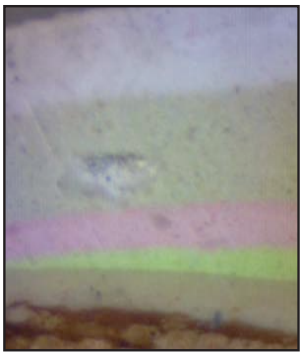
MHI6D12

Location: Mukai House Interior
Room: 6
Detail: door

Number of Layers:

LAYER DESCRIPTION
Substrate: wood
1. very smooth (BM 254 Woven Jacquard)
2. very smooth and uniform (BM 396 Chic Lime)
3. very smooth and uniform (BM 1270 Tara)
4. very thick, smooth (BM 254 Woven Jacquard)
5. very thick, dirt visible (BM OC-72 Pink Damask)

Note: I was surprised to see the lime green, pink, and taupe color repeated in the door chromochronology. Also strange was the duplicative taupe color in the fourth layer that was virtually identical to the first layer.



80x Magnification

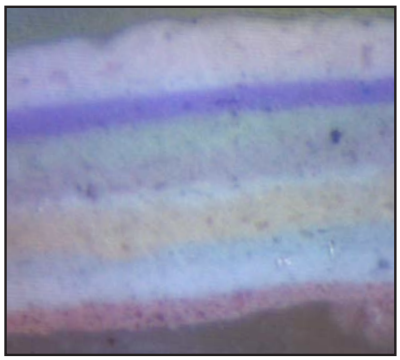
MHI5E1

Location: Mukai House Interior
Room: 5
Detail: elevation

Number of Layers: 9

LAYER DESCRIPTION
Substrate: plaster
1. thin, several voids (BM 067 Del Ray Peach)
2. thin, smooth (BM OC-69 White Opulence)
3. very thin (BM OC-26 Silver Satin)
4. thick, few voids (BM 323 lightning bolt)
5. thin (BM OC-72 Pink Damask)
6. thick, smooth (BM OC-48 Hazy Skies)
7. thin, smooth (BM 1405 Snugglepuss)
8. very thin layer of white primer
9. thick (BM OC-78 Parchment)

Note: Original layer is tinted plaster similar to what was used in rooms 4 and 6.



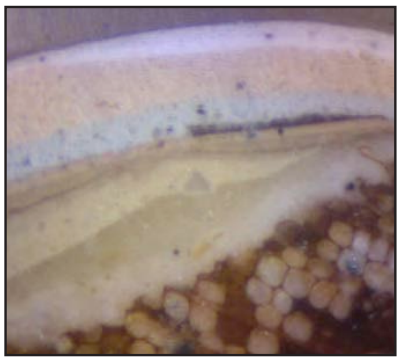
80x Magnification

MHI5W3

Location: Mukai House Interior
Room: 5
Detail: window

Number of Layers: 8

LAYER DESCRIPTION
Substrate: wood
1. uneven (BM 1031 Carlisle Cream)
2. uneven, smooth (BM 1039 Stone House)
3. smooth (BM 178 Golden Lab)
4. thin, smooth (BM 1122 Cocoa Sand)
5. very thin, smooth (BM 1123 Palm Desert Tan)
5. very thin (BM 1110 Tawny Bisque)
---partial dirt layer---
6. pigments visible (BM 715 In your Eyes)
7. thick, smooth (BM 1108 Chamois)
8. smooth (BM OC-69 White Opulence)



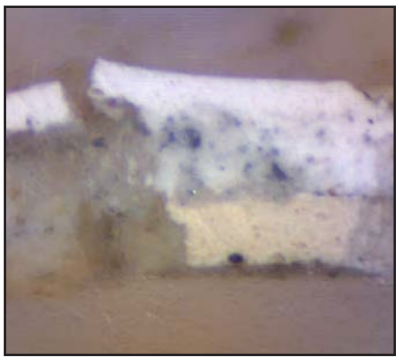
80x Magnification

MHI5R1

Location: Mukai House Interior
Room: 5
Detail: radiator

Number of Layers: 3

LAYER DESCRIPTION
Substrate: Metal
1.Thick (BM 178 Golden Lab)
2. Thick (BM OC-69 White Opulence)
3. Thick, smooth (BM OC-69 White Opulence)



80x Magnification

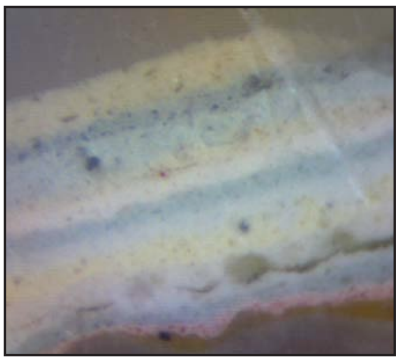
MHI4E1

Location: Mukai House Interior
Room: 4
Detail: elevation

Number of Layers: 11

LAYER DESCRIPTION
Substrate: plaster
1. thin, several voids (BM 067 Del Ray Peach)
2. thin, several voides (BM 561 Pistachio)
3. thick, smooth layer of white primer
4. thick, semi smooth (BM 323 lightning bolt)
5. thin, smooth layer of white primer
6. thin, several small voids (BM 702 Bali)
7. thin, smooth layer of white primer
8. thin, uneven (BM 1108 Chamois)
9. thick, several voids and pigments present (BM OC-18 Dove Wing)
10. thin, semi smooth, uneven (BM 861 Shale)
11. thick, smooth (BM 297 Golden Honey)

Note: Original layer is tinted plaster similar to what was used in rooms 5 and 6.



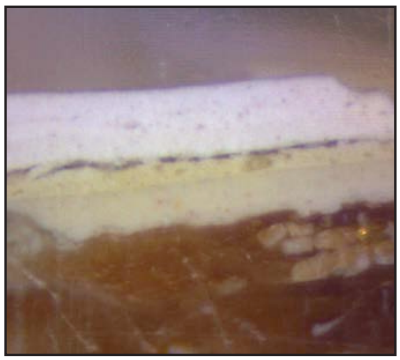
80x Magnification

MHI4D7

Location: Mukai House Interior
Room: 4
Detail: door

Number of Layers: 4

LAYER DESCRIPTION
Substrate: wood
1. uneven, smooth (BM OC-112 Goldtone)
2. thin, several voids (BM 178 Golden Lab)
---dirt layer---
3. smooth (BM OC-105 Calming Cream)
4. smooth (BM OC-69 White Opulence)



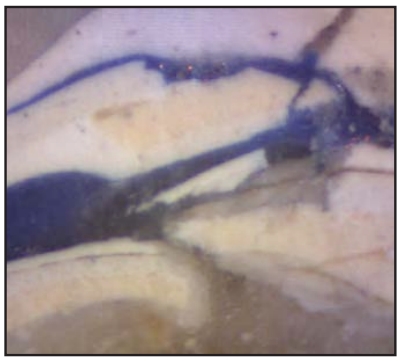
80x Magnification

MHI4W2

Location: Mukai House Interior
Room: 4
Detail: window

Number of Layers:

LAYER DESCRIPTION
Substrate: wood (not visible in sample)
1. thick, smooth (BM OC-78 Parchment)
2. smooth (BM OC-46 Halo)
---dirt layer---
3. very smooth (BM OC-69 White Opulence)
4. thin, uneven (BM 798 Blue Suede Shoes)
4. very thick (BM OC-69 White Opulence)



80x Magnification

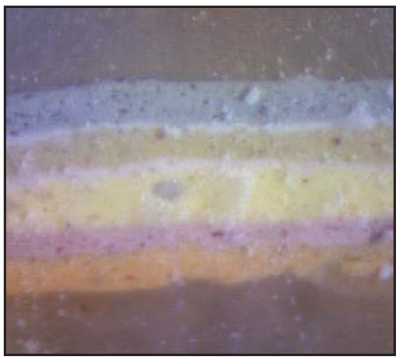
MHI3E1

Location: Mukai House Interior
Room: 3
Detail: elevation

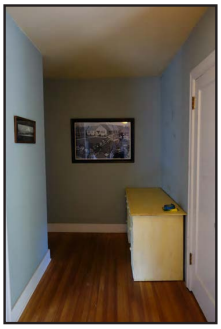
Number of Layers: 7

LAYER DESCRIPTION
Substrate: plaster
1. Semi smooth, some voids (BM 160 Soft marigold)
2. Several voids (BM 1277 Engagement)
3. Thick, large voids (BM 325 Wildflowers)
4. Thin layer of primer
5. Thin, smooth (BM 271 Barley Grass)
6. Thin layer of primer
7. Pigments visible (BM 1593 Adagio)

Note: Original layer is a tinted plaster.



80x Magnification

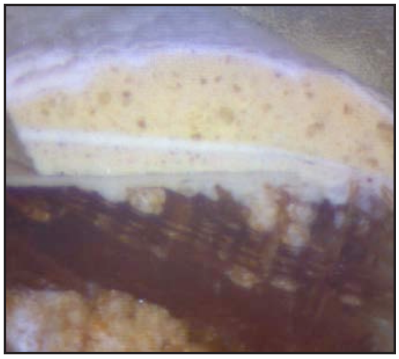


MHI3B1

Location: Mukai House Interior
Room: 3
Detail: baseboard

Number of Layers: 5

LAYER DESCRIPTION
Substrate: wood
1. very thin, smooth (BM 1039 Stone House)
2. small voids (BM 254 Woven Jacquard)
3. very thin, smooth (BM OC-112 Goldtone)
4.several large voids (BM 368 City Scape Morning)
5. thin (BM OC-105 Calming Cream)



80x Magnification

MHI3C1

Location: Mukai House Interior
Room: 3
Detail: ceiling

Number of Layers: 3

LAYER DESCRIPTION
Substrate: plaster
1. several large voids (BM 256 Westwood Tan)
2. few voids (BM OC-69 White Opulence)
3. thick, pigments visible (BM 331 Lemon Souffle)

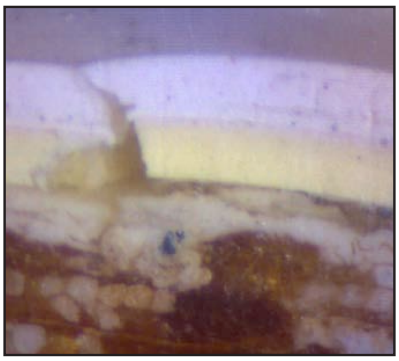
80x Magnification

MHI3D9

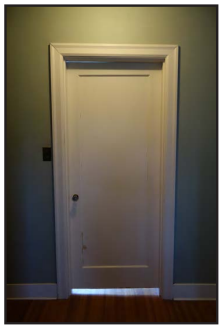
Location: Mukai House Interior
Room: 3
Detail: door

Number of Layers: 5

LAYER DESCRIPTION
Substrate: wood
1. very uneven (BM 1108 Chamois)
2. thick, smooth (BM 325 Wildflowers)
3. very thin (BM OC-105 Calming Cream)
5. Very thick, possibly multiple layers (BM OC-69 White Opulence)



80x Magnification

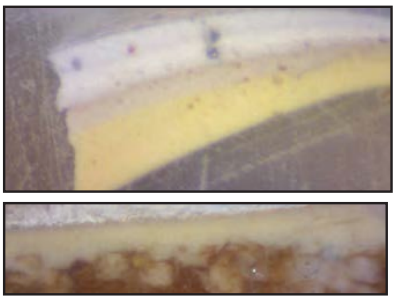


MHI3_DET1

Location: Mukai House Interior
Room: 3
Detail: built-in

Number of Layers: 5

LAYER DESCRIPTION
Substrate: wood (sample separated, shown in 2 fragments)
1. uneven, smooth (BM 1108 Chamois)
2. thick, smooth (BM 325 Wildflowers)
3. smooth (BM 254 Woven Jacquard)
4. smooth(BM OC-69 White Opulence)
5. smooth(BM OC-105 Calming Cream)



80x Magnification

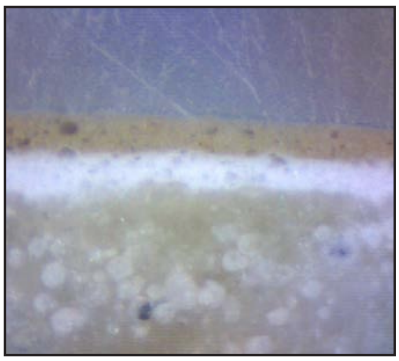
MHI2E1

Location: Mukai House Interior
Room: 2
Detail: elevation

Number of Layers: 2

LAYER DESCRIPTION
Substrate: plaster
1. smooth, some voids (BM OC-69 White Opulence)
2. smooth, some voids (BM 265 Gemstone)

Note: plaster substrate is white.



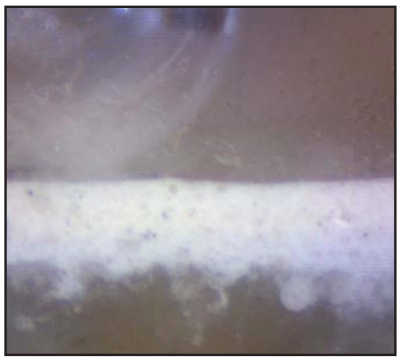
80x Magnification

MHI2C1

Location: Mukai House Interior
Room: 2
Detail: ceiling

Number of Layers: 1

LAYER DESCRIPTION
Substrate: plaster
1. Few voids (BM OC-105 Calming Cream)



80x Magnification

MHI2R1

Location: Mukai House Interior
Room: 2
Detail: radiator

Number of Layers: 6

LAYER DESCRIPTION
Substrate: metal
1.smooth, some pigments visible (BM 1039 Stone House)
2. smooth (BM 254 Woven Jacquard)
---thick dirt/rust layer---
3. thin, smooth (BM OC-112 Goldtone)
4. very thin (BM 256 Westwood Tan)
5. Very thin (BM OC-105 Calming Cream)
---thick dirt/rust layer---
6. thin (BM OC-105 Calming Cream)

80x Magnification

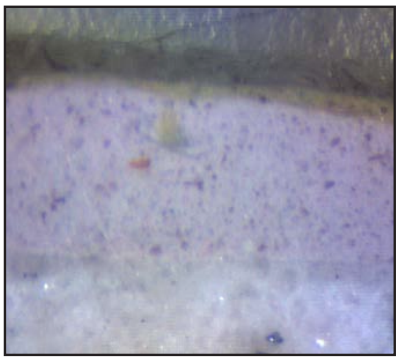
MHI1E1

Location: Mukai House Interior
Room: 1
Detail: elevation

Number of Layers: 2

LAYER DESCRIPTION
Substrate: plaster
1. Thick layer, several pigments visible (BM 1451 Violet Pearl)
2. Very thin (BM 265 Gemstone)

Note: Original layer is a tinted plaster.



80x Magnification

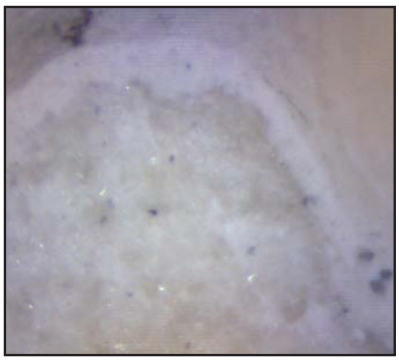
MHI1C1

Location: Mukai House Interior
Room: 1
Detail: ceiling

Number of Layers: 1

LAYER DESCRIPTION
Substrate: plaster
1. painted plaster (BM OC-46 Halo)

Note: Ceiling is a textured plaster.



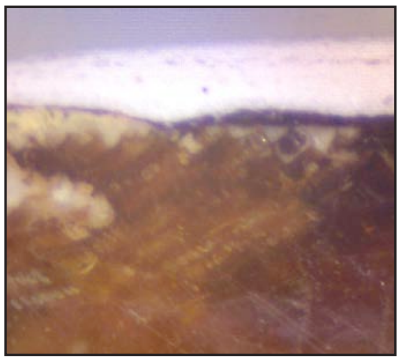
80x Magnification

MHI1FM

Location: Mukai House Interior
Room: 1
Detail: fireplace mantle

Number of Layers: 3

LAYER DESCRIPTION
Substrate: wood
1. thin layer of brown wood varnish/stain
2. thick, smooth (BM OC-105 Calming Cream)
3. thin (BM OC-105 Calming Cream)



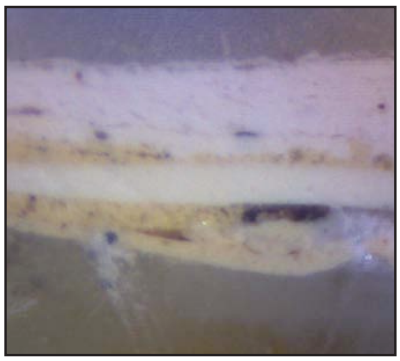
80x Magnification

MHI1D5

Location: Mukai House Interior
Room: 1
Detail: door

Number of Layers: 5

LAYER DESCRIPTION
Substrate: wood (not visible in sample image)
1. smooth (BM 1039 Stone House)
2. several voids (BM 254 Woven Jacquard)
3. very smooth (BM OC-112 Goldtone)
4.several voids (BM 254 Woven Jacquard)
5. thin (BM OC-105 Calming Cream)
5. very thick, uneven (BM OC-105 Calming Cream)



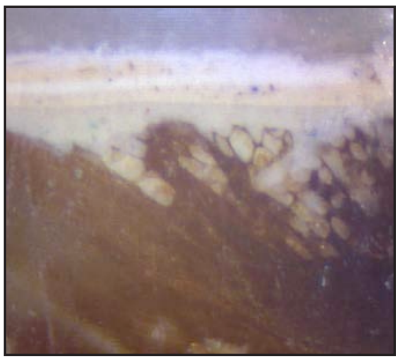
80x Magnification

MHI1W1

Location: Mukai House Interior
Room: 1
Detail: window

Number of Layers: 5

LAYER DESCRIPTION
Substrate: wood
1. uneven (BM 1039 Stone House)
2. thin, smooth (BM 254 Woven Jacquard)
3. thin, smooth (BM OC-112 Goldtone)
4. thin, smooth (BM 254 Woven Jacquard)
5. very thin (BM OC-105 Calming Cream)



80x Magnification

MHI1R1

Location: Mukai House Interior
Room: 1
Detail: radiator

Number of Layers: 4

LAYER DESCRIPTION
Substrate: metal
1.thin layer, several voids and dirt (BM 861 Shale)
2. smooth (BM OC-112 Goldtone)
3. very thick and smooth (BM 297 Golden Honey)
4. thick, some voids (BM OC-105 Calming Cream)

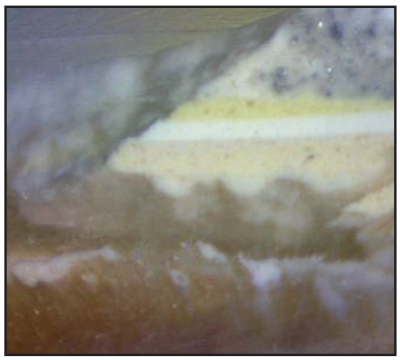
80x Magnification

MHI1CM8_1

Location: Mukai House Interior
Room: 1
Detail: crown moulding

Number of Layers: 4

LAYER DESCRIPTION
Substrate: wood
1. smooth (BM OC-112 Goldtone)
2. thin, very smooth (BM OC-105 Calming Cream)
3. thin, very smooth (BM 297 Golden Honey)
4. Very thick, several voids (BM OC-105 Calming Cream)



80x Magnification

EXTERIOR FINDINGS

Residence
The exterior of the residence is painted in a light green with pale yellow trim and accents. The present paint scheme is very similar to the original. When the residence was originally constructed around 1926 the horizontal wood siding was a Grey-Green (BM HC-115 Georgian Green) with pale yellow (BM 178 Golden Lab) window and door trim. The siding has always been a variation of grey or green. The doors were likely all painted in a pale pink (BM 053 Crazy for you). The hood above the entry door on the East elevation was originally a stained or varnished wood. Although the stain appears dark in the stratigraphy, historic photographs of the family outside the front entry show it was a light stain that would have matched the pale trim. The East entry door has only two visible layers in its stratigraphy, suggesting it is a replacement, although likely in-kind. Decorative elements of the porch are harder to interpret due to a surprisingly lack of visible layers in the stratigraphy. The ceiling had several visible layers and appears to have originally been a light blue (BM 619 Copper Patina). The columns, fascia, and railings however, all only had two visible layers: a white base layer (possibly primer or white paint) and the existing pale yellow color. It is virtually impossible that these areas of the porch were not painted at an earlier time and I question if they have been sanded/stripped or repaired over the nearly 100 year history. By contrast, the siding the trim samples taken from the rest of the exterior all show seven paint campaigns, which is typical for a residence following standard maintenance practices. Although little evidence is visible on the portico elements, the pale yellow visible on the remaining window trims (BM 178 Golden Lab) was likely used in these areas.

Shed
The shed had hardly any paint remaining to sample. I managed to take a siding sample from the rear (west) facade from a moderately sheltered area. Only two visible layers were present, which is not unlikely given the current condition of the structure. The original color was a beige (BM 977 Brandon Beige), which is now covered by a dark blue (BM 1593 Adagio), although it is worth noting that the integrity of the sample is low given its exposure to the elements.

Barreling Plant
The barreling plant has a colorful history, although it was painted grey (BM 1586 Silver Mink) with white/cream trim (BM OC-46 Halo) shortly after its completion in 1926-1927. Only two areas were indicated for sampling at the barreling plant so the doors are not known, but it can be inferred that they likely followed the white/cream and grey scheme as well.

INTERIOR FINDINGS

Room 1 (Living Room) & Room 2 (Adjoining Living Room)
The living room, accessed through french doors off the portico, have white plaster walls with two visible layers of paint, a very pale lavender (BM 1451 Violet Pearl), and the existing visible wall color. All trim and doors were originally a light taupe (BM 1039 Stone House) and have 4-5 layers in their stratigraphy. The ceiling is a textured plaster with one layer of paint in an off-white (BM OC-46 Halo). The fireplace mantle surprisingly only has two layers in its stratigraphy, although the first appears to be a varnish or stain. If this is the original mantle, it likely remained stained until all trim in the room was painted white (the most recent campaign).

The walls of the adjoining room (room 2) were also originally a white plaster and has two layers in its stratigraphy, although it does not match room 1. Room 2 does not have the pale lavender color visible in room 1, instead it has a layer of white paint and the existing, visible color. The ceiling finish is different from room 1 as well. While sampling on site it was evident that room 2 used to have a door that connected to room 9. The baseboards in both rooms show evidence of this, as well as the wall finish.

The low number of layers present in the stratigraphy in both rooms was surprising, especially compared to the rest of the interior finishes. However, formal, public spaces of a residence are changed less often and it is likely that both rooms were originally unpainted white plaster for an extended length of time with the trim changing with taste. This is further evidenced by the various colors in the trim stratigraphy which are all pretty subdued and conservative compared to the rest of the house.

Room 3 (Hallway)
The hallway (as well as rooms 4-6) were originally tinted plaster. The hallway plaster was originally (BM 160 Soft marigold) with a tinted plaster ceiling in (BM 256 Westwood Tan). All trim, doors and the built-in were originally a similar light taupe color to the trim in rooms 1 and 2 (BM OC-46 or BM 1108 Chamois). Unlike the conservative scheme of rooms 1 and 2, the hallway has seven layers in its stratigraphy with colorful pink, yellow and the existing bright blue.

Rooms 4-6 (Sitting room, two bedrooms)
Rooms 4-6 were all originally a tinted peach plaster (BM 067 Del Ray Peach) with a cream trim (trim color varies sightly in each room). All rooms have several layers (9-11) in the stratigraphy of the elevations and trim, evidence of changing personal tastes in bedrooms.

Room 7 (Bathroom)
The bathroom originally was a tinted plaster in a light tan (BM 1110 Tawny Bisque) with cream trim (BM OC-105 Calming Cream) and door. The sample taken from the wall trim did not have the same base layer or number of layers as samples taken from the door or medicine cabinet, indicating the wall trim was added at a later time.

8 (Kitchen)
The kitchen was originally a white plaster. There are four layers of various yellow paint on the white plaster with the first being a very pale yellow (BM OC-18 Dove Wing) layer. It's difficult to discern when the walls were originally painted, but given the tinted plaster finishes in many of the other rooms and lack of finishes on white plaster in rooms one and two, I would surmise that the kitchen was also simple white for a length of time. It seems unlikely that it would be the only room painted at the time of construction. The cabinets, presently white, were originally varnished wood. The backsplash is an interesting pop of color, but as noted in the analysis, it's difficult to know when it was applied and if it's original to the kitchen. More selective investigation/demolition could lend clues, but given the number of layers in its stratigraphy, it's been in place for a while.

Room 9 (Mudroom/Office)
The mudroom was also originally a tinted plaster in a very pale pinkish cream (BM 282 Counting Stars) with taupe trim (BM 282 Counting Stars).

RECOMMENDATIONS
Recommendations vary based on the intended use of the residence and interpretive story. All colors that previously existed are historic in their own right and could be considered appropriate. The exterior is a close representation of the original scheme, but returning the siding and door colors would illustrate a slightly different impression. Both the shed and barreling plant need to be painted and it is recommended that both be painted in the same color, unless a later date is known for the shed that should be distinguished. Regarding the interior of the residence, given the large variety of paint schemes present throughout the house, as well as the period of significance for the residence beginning at construction, I suggest returning to the original plaster colors and trim. This would not only provide a cohesive approach to the house, it would visually distinguish the public and private spaces of the home as originally intended with the two front rooms in a muted and conservative white and all three private rooms (bedrooms) in peach.

Garden. Courtesy Artifacts Consulting, Inc.

D. Japanese Garden / Residential Site Features Technical Guidance

This section provides background and technical information to support the stewardship of the Japanese Garden prepared by Karen Kiest Landscape Architects. Additional information is contained in the Historical Context.

Refer to Appendix F for significance and public visibility analysis maps.

Approach

This technical guidance is compiled from several efforts identified below under reference materials.

Reference Materials

To date, most of our research had been from secondary sources:

- Historic American Landscapes Survey, Mukai Farmstead and Garden – Mukai Farmstead and Garden, HALS No. xxx, 2016.
- Matthews, Mary. "Mukai Cold Process Fruit Barreling Plant." National Register of Historic Places Nomination Form, Submitted September 15, 1993.
- Sunstrom, Carolyn J. "The Mukai Garden : An Issei Woman's Expression of Her Cultural Heritage and Immigrant Experience." Master's Thesis. University of Washington, 1996.

Reference to the available historic research could be greatly expanded, to include:

- Comparison with other Japanese Gardens in the region
- Investigation of the social and cultural ties between the Japanese American communities on Vashon, and neighboring communities, including Seattle, Bainbridge Island, Kent Valley, and Tacoma.

The available photographs have been invaluable to documentation and analysis of the house and grounds, particularly the plantings.

- King County IMAP: 1936 Aerial, 2015 Aerial
- 2016 Drone image courtesy of Cindy and Steve Stockett
- Photographs, courtesy of Friends of Mukai

- Photographs, HALS Survey, courtesy of Friends of Mukai
- In addition, November 2016 photos were taken from similar vantage points, to confirm previous and current conditions.

Friends of Mukai provided an extensive collection of historic photographs, including images cross-referenced in the HALS report. We have compiled all available photographs for reference,

- House and Grounds
- Front Lawn and Rockery
- North Garden
- South Garden

We have compiled available photographs, provided notes, and added additional comments, questions. There is considerable discrepancy between the ascribed dates. We have found the size of plant material to be one of the more reliable indicators of dates. In particular, the formal line of conifers planted on the front (East) facade of the home is clear in nearly every photograph and helps order the photographic sequence.

The historic and contemporary photographic documentation can be expanded and refined to support the preparation of a planting plan for restoration of the House and Grounds.

Available Survey

Documentation of the existing house and grounds was initiated in Summer 2016. A preliminary topographic survey was initiated in Summer 2016. Additional survey information was provided. Land surveyor Jerry O'Hare with the help of Artifacts surveyed the site to provide GPS markers for field information, which was added to the survey. A drone was employed by volunteers to provide more accurate aerial information. Preliminary identification of plant material from GPS coordinates was provided by volunteers in September 2016. Karen Kiest Landscape Architects (KKLA) was onsite in November to verify the documented field information. Subsequent plant identification from historic photographs has been initiated by Karen Kiest in preparation of this report.

Plans

The plans have been prepared in AutoCad, with the 1936 and 2015 King County Aerial Surveys as underlayment. A draft of extant site features, including plant material was prepared.

The plans can be expanded to include 1) list of former plantings identified from photography, and relayed information, and 2) their location. This information would be necessary to prepare a planting plan for restoration of the House and Grounds.

Plant Table

The table was compiled from GPS points, as annotated, and updated per November 2016 visit. This list identifies all extant plants. In addition, there are points indicated for plants identified from the 1936 aerial, which are identified as Cherry.

The table can be expanded to include 1) list of former plantings identified from photography, and relayed information, and 2) their location. This information would be necessary to prepare a planting plan for restoration of the House and Grounds.

Construction Means and Methods

As introduced here, the Japanese gardens were constructed with local labor, available materials, and minimal (if any) mechanical equipment. Additional research should be considered to determine means and methods for constructing the hills, the rockeries, and the ponds.

Areas for continuing documentation include:

- Source and character of stone
- Pond construction

DEGREE OF EXTANT CHARACTER-DEFINING FEATURES

Gardens appear as ephemeral artistic expressions, defined by the seasons' play with the senses as reflected in the expressive living plantings. However, less remarked upon is the enduring items contributing to a garden, including its setting, the organization, the physical grading, the durable materials i.e. the enduring structure.

Structure

In this site, the structure of the garden remains essentially whole and intact and retains a high level of integrity. The original layout and grading and materials – remain essentially intact. Alterations are few, although as described, there has been a reduction in the extent of the South Japanese Garden. Even without the quality of the plantings, the dramatic grade of the North and South Gardens afford the visitor the opportunity to appreciate the Japanese Garden rising high above the surrounding plane.

Plantings

The plantings, while substantially diminished by several years without adequate care, or replenishment, retain clear reference to the period of significance. However, the extant plantings have seriously overgrown their settings, and may no longer contribute to the appreciation of the garden. And with the majority of the original plants missing, new plant material may or may not be the same as original.

CONDITION ASSESSMENT FINDINGS

Overall the Garden is in a state of stabilized disrepair. The key issues for the garden's condition are identified here.

House and Grounds

As has been commented on by others, including Sunstrom , the house and grounds is one of three well-defined zones of the property, the second the working plant, north and west of the house, and the third the strawberry fields south and west of the residence. The house and grounds are generally described as the area defined by the line of cherry trees and include the North Triangle, and Kitchen Garden (See 1936, 2016 House and Grounds Plan).

As presented in this report, located within this overall area are three sub-areas of detailed development, which follow this general section (See 1936 House and Grounds Plan, 2016 House and Grounds Plan):

- Front Yard (2016 Front Yard and South Japanese Garden Plan, Front Yard-FY Photos)
- North Japanese Garden (2016 North Japanese Garden Plan, North Japanese Garden from West -NG1 Photos, North Japanese Garden from North and Southeast-NG2 Photos)
- South Japanese Garden (2016 Front Yard and South Japanese Garden, South Japanese Garden-SG Photos)

Perimeter Cherry Trees (and Conifers and Roses)

The overall framework of the house and grounds is established by the line of cherry trees (as well as intermittent conifers, rose bushes and pasture fencing) that establish and separate the domestic setting from the roadway to the east, the working plant to the north and west, and the strawberry fields to the south.

Installation of the Cherry trees would have likely been an early effort and may have preceded the development of the gardens. The trees appear to be set on or just outboard of the property line to the east in a rigorous straight line, an arrangement that would be more common to the farmer using the trees to mark the property line or as a wind break, and the pattern is repeated on all sides of the house. Cherry trees grow very quickly. The several early photos of the house and grounds show young trees, with 5 foot diameter canopy. These trees are quite evident in the 1936 King County aerial, indicating a canopy of 10-15 feet. There is a photo (NG2-6) with BD, grandson Milton, and possibly Kuni at a fenceline with Cherry trees. The 'Kanzan' variety cherry tree are well-established, with about 12 inch diameter breast height (DBH).

Photos indicate conifers were installed likely after the cherries on all sides of the house. The conifers alternated with the cherries. Perhaps the trees were installed to provide a formal hedge or screen. However, the trees were set far apart and mostly interrupt the line of cherries (FY-7, NG2-1, SG-1). The conifers appear to be several species, including common local trees – Douglas fir, hemlock, and pine. At the perimeter there are ornamental Japanese conifers, including Hinoki cypress, Chamaecyparis obtusa, native to Japan, and Japanese cedar, Cryptomeria japonica, endemic to Japan, where it is known as sugi . Sugi are very formal pyramidal trees in youth, and likely represent several of the formal conifers shown around the perimeter. A remaining pair frames the entry steps up to the lawn.

As Sunstrom remarked, the ornamental cherry trees that outline the residential site are the most outstanding trees. She indicates they are interplanted with conifers, while she was not clear the reason.

In addition to the line of trees, Kuni introduced roses to the site, installing a line of rose bushes at the southern property boundary (SG-8) and in front of the packing plant.

North Triangle

The North Triangle, framed by cherry trees along the roadway and entry drive and by a band of stones and trees that encloses the North Japanese Garden, mediates between the working and domestic areas of the property. In early photos this area is shown as unimproved (NG2-1). A prominent Blue Atlas Cedar was installed in the 1930s and is now one of the largest trees on the property. An experimental 'moss' garden was situated here in the 1930s, but removed when the brick office building was constructed in 1936.

Kitchen Garden

The Kitchen Garden was located outside the ell of cherry trees that framed the west side of the house. The kitch-

en garden mediates between the domestic and working areas, screened from the house and the parking area by cherry trees, but subdivided from the larger agricultural fields by an access route to the west.

The garden is known through mention in accounts of the site and household operation; however, the specifics of size and location have not been fully documented. Based on the 1937 aerial and accounts that the garden was behind (west of) the house we have identified a roughly 13 by 40 foot area that could have functioned as the garden. Other areas at the time were part of fields or planted as part of the site landscaping (trees and Japanese garden).

There are few available photographs from or of the west side of the house. Photo FY-7 and NG2-1 offer a partial glimpse to the West. In photo NG2-1, tall plants are likely summer corn. The 1936 aerial also indicates the kitchen garden was clearly not maintained as lawn, or pasture, but appears to be cultivated soil similar to the strawberry fields beyond.

Today, the Kitchen Garden area includes a remnant orchard, with Pear, Apple, Fig and Prune species, which are not present on the 1936 aerial or 1959 aerials (See Cardinale). The trees age and condition indicate the trees were likely planted in the 1960s or 1970s.

It has been represented that only one tree, a Western Red Cedar at the northwest corner of the house, was original . A large stump (2514) remains at this location. The tree was present on King County aerials until 2005. However, there is no indication of a tree at this location in photos. It is more likely that tree was one of the original perimeter conifers. Image SG-1 shows a larger conifer, about 4 inches DBH to the west of the South Japanese Garden Pond, leaning and severely pruned or stunted. This may have been the sole pre-existing conifer previously remarked upon.

Lawn

Bounded by the cherry trees, the dominant landscape feature is the lawn itself. In all early photos (See FY-5, NG2-1, NG2-3, SG-1), lawn areas appear darker than the surrounding areas, indicating that all areas were carefully graded, grassed, mowed, and sprinkled, representing considerable effort to maintain. Several photos show hoses in the background. The front yard lawn's quality indicates there may have been a more formal irrigation system.

Front Yard

Site development was more than the creation of an 'American' front lawn, as has been commented in various accounts. After purchasing the property in 1926, by 1928 B.D. had a residence built on the property. According to Sunstrom, B.D. roughly sketched his ideas on a paper bag and handed to the Norwegian contractor, Olas Severson, who has building many houses on the west side of Vashon, to build.

Given that the site was naturally sloping to the west and the south away from the roadway (107th Street SW) and the bottling plant, the home's aspect is impressive. The garage, at about elevation 373 feet is not cut into the grade – rather the grade is build up 4-5 feet to provide a prominent aspect for the first floor of the home (elev. 381 feet), and raised 2-3 feet above the grade of the road. The extent of fill is significant. Where the fill came from for this effort is unclear.

An ambitious rockery running north south along the property line, and angling west towards the house supports and celebrates this grade change and perfect lawn. The materials and means anticipate the later Japanese Gardens. It is likely that the site grading and the rockery were completed by the agricultural laborers (under direction of B.D. and Masa, see North Japanese Garden). Stones were field collected, and include various glacial erratics of granitic origin. The photo of Kuni on the rockery appears to be the earliest photo of this area (FY-8). Stones nearest the house seem to be simply laid; there is considerable more care towards the northwest corner, where stones increase in size and are set on end to accentuate the verticality of the composition. There are several photos of the northeast corner of the rockery, which was celebrated with a Japanese maple (FY-7-12), which is the only remaining Japanese maple on the property (FY-12).

In 1926, and even today, 107th Street SW is hardly a street. Before the street was platted in 1961 the road existed only as an unpaved driveway, and continued beyond the house only as a field lane. The residence however, respected this unimproved right of way as a dignified city street. There was the row of Cherry trees at the 'street' edge. Then, it appears there was a graveled walk (FY-5, FY-2, FY-7, NG-2). Then, there was a strip of watered lawn reaching to the base of the rockery.

Inset within the rockery, large stone pavers establish the front entry from street. The three stone steps up to the front walk and lawn are impressive. The treads are almost 4' long, the stone worked and set without mortar.

(FY-5, FY-6).

It seems likely the setting of these rough stone treads was completed before the decision to install a formal concrete walk was made. The formal entry walk begins at the top of the stone steps, and extends to the north-south walk fronting the house. These walks and the pair of entry stairs are carefully detailed and likely constructed at the same time. In early photos, a pair of formal concrete planters are set on the front entry cheek walls (FY-5, FY-7, FY-8, SG-2).

There are three concrete pole lights dominating the property. The lights appear to be from a public source, and are more typical to a roadway setting. The northern light is approximately 15 feet tall, with a clear pole base, confirming original grade. The upper two lights frame the building from the street view, but are 7-foot height. The shorter poles are more in keeping with the residential scale, but appear to be the same pole as the northern light, with the base buried. Raising the question of whether the grade was raised after the lights were installed?

Plantings

As introduced above, the dominant feature is the lawn itself. In all photos, the front lawn is a leveled, mowed, and sprinkled central feature of the property. Several photos show hoses in the background. While photos show hoses in the background, the lawn's quality indicates there may have been a more formal irrigation system.

Today's rockery includes only the survivors, evergreen plants including sword ferns, cotoneasters, and several juniper types. Originally the rockery included heaths (Erica) heathers (Calluna) candytuft (Iberis) and dianthus (Dianthus caryophyllus) A complete plant list may be compiled.

A dissected red leaf Japanese maple (Acer palmatum – to determine), the last of four that were originally planted, is located atop the northeastern corner of the rockery and hangs over the end of the north island garden's east pond (FY-7-12). According to Sunstrom, the four Japanese maples were the most memorable of the plantings. Only this one maple remains, although the locations of the other maples should be verifiable from photographs .

A thread leaf Sawara cypress at the western end of the rockery is indicated as a dwarf shrub in early photos, and now looms over the site at sixteen feet and 12" caliper.

North and South Japanese Gardens

Within this grid of trees and lawn and walkways were established the North and South Japanese Gardens. As Sunstrom details, there was no relationship between the house and garden, as may be seen in traditional Japanese landscape design, as Masa states "...absolutely no connection. They wanted to be as 'Americanized' as much as possible. The house plans were following that idea. The garden was something else. That's where the line was drawn".

North Japanese Garden

According to records, North Garden was likely initiated with or soon after completion of the house, and per Sunstrom, the garden was completed over a 2-year period, by B.D. and Masa, with the likely (and considerable) assistance of agricultural laborers. Photo NG1-1 may be the earliest photo of the garden, and may date from 1928. The photo, taken from the west side, likely off the north porch, shows the new hill island and pond, set within the North Garden.

Structure

The majority of rocks were obtained from the Mukai's fields and neighboring properties. Similar to the rockery previously described, photo NG1-1 indicates the increasing size and care of setting of stones from the south to the north. There are several large stones oriented vertically towards the north. This first photo appears to indicate that there was a major stone, 5-6 feet, placed vertically on the summit of the island, perhaps with a supporting post still in place. This stone is not visible in later photographs. Site investigation could confirm it had toppled and remains on the site.

The north end would provide the initial visitor impression of the garden, as demonstrated in later photos (NG2-1), which show the north island from the north, set within a lush lawn. The north end of the island is most carefully composed, with a narrow stone path weaving between the large vertical boulders, inviting the visitor to ascend the mountain.

The east side of the mountain is less photographed. The only photos are of the southern end of the island, including views towards the rockery and house beyond. From the south, there was developed a similar stepping stone trail up the hill, weaving between vertical jagged boulders (NG2-8, NG2-9).

The 'mountain' rises above the water. There are actually an east and west pond, separated by narrow 'isthmus' at the north and south end, which provided a practical land bridge for construction and continuing pedestrian connection to the island. It is interesting that a stone or wood 'bridge' was not constructed, as known from various formal Japanese gardens.

These are fairly narrow ponds, almost missed from a distance, by comparison to various Japanese gardens.

Construction of the ponds included excavation of soils to a depth of 2-3 feet. This soil forms part of the mountain (although there would have been additional fill required). Stones were placed around the perimeter. Several of these stones are quite jagged and vertical. The vertical stones actually help signal the pond edge from a distance, and would have helped keep people away from the edge. The west (house) side of the pond includes a stone leaning over the pond that shows up in several photographs and was described as a 'bird stone' (NG1-5, NG1-8, NG1-9 .

Further investigation could confirm whether the stones were set in concrete for stability, or whether they were just cemented in when concrete was set in the base of the ponds. Deeper holes were set in the ponds, likely for setting pots of waterlilies into the pools or maybe to provide fish protection from raccoons, etc.

Water feature mechanics were fairly minimal. There was no catch basin for draining the pools. Piping and a connection to the property's water system was extended to the west side of the island to provide water for a water fall near the 'bird' stone, visible in NG1-8. Both the lack of a catch basin and the water supply connection should be confirmed as part of future work on the basin.

The west side of the mountain island has the most photographs, with the majority taken from the convenience of the back porch. It has also been suggested that this more private side of the Garden received more attention and appreciation by the family .

The earliest photo NG1-1 also provides a clear representation of the background for the Garden. There is the tall light pole, the new power pole and service to the property. There is the unimproved street with the sedan and truck parked. Beyond, with a stand of fir trees in the far distance, is a young orchard on the acres that have been called the Taylor property.

In the foreground, in the level area between the garage driveway and the garden, there is a series of major boulders dotting the ground, with small conifers, rhododendrons and other shrubs. These plantings demonstrate what may have been a more ambitious vision to create a setting or context for the hill island and pod. However, the sparsity of the plantings suggest that this was literally a lot of ground to cover. The ground looks to be bare soil, recently graded, with no grass established.

This foreground evolves considerably in the next few years. Photo NG2-1 and NG2-3 shows the area has been greatly simplified to be three remaining large flat stones set in lawn. Photo NG2-2 shows a clearer line of cherry trees at the driveway. Photo NG1-2, which appears to be a postcard, shows the stones no longer appear within the lawn, and the cherry trees have grown tall to cast considerable shade onto the lawn. The simplification of the foreground would have provided an opportunity for the garden parties described in the HALS report and elsewhere.

This is the current condition of the foreground, with remnant plantings of cherry trees and shrubs at the driveway.

Plantings

Planting intentions for the north Garden are best understood from early black/white photographs, and from prints from colored slides from the post-war era. Remnant plants mapped and cataloged in 2016 (2016 North Japanese garden) are the 'survivors', and provide little indication of the extent and variation of the original plantings.

Sunstrom remarks that a visitor "in the 1920's (KK - likely later date) would have walked beneath the cherry trees, viewed well-manicured lawns and a Japanese hill garden surrounded by a pond in the distance..." 'the garden viewer could meander over an isthmus, up a hill, along a stone pathway, across a lawn, down stairs, and under the broad canopies of cherry trees."

As introduced above, planting proceeded in stages. From NG1-1, individual trees and shrubs were placed first. Three pines were placed near the top of the mountain, exaggerating the height. These trees are later shown as bent and pruned, although they do not appear to have been carefully pruned. There were several individual shrubs located on the sides, and several vertical conifers as well. Ground covers appear to have been installed even in the earliest photos. There are irises planted around the

edges of the ponds.

Plant layout can be understood from these early photos, although it is hard to identify the individual plants without reference to the color images taken after the war. In considering layout, the garden reflects a novice interest in gardening. Plants are nearly all individual specimens, and there is less composition of massing of plants.

Plant form is accentuated. Best seen in NG1-2-NG1-3, NG2-1, NG2-3, there are several columnar or fastigiate trees, including the narrow Yew which dominates the hill today. In addition to the rigidly vase-like 'Kanzan' cherries, there are weeping cherries.

Pruning is also a significant character of gardens in Japan, where plants are rigorously but carefully pruned to evoke an old, weathered landscape shaped by the elements. There is also minimal pruning of plant material than would be typical in a rigorously maintained garden in Japan. Except for the few pines, most conifers, although several were slow growing, were left unpruned. An exception is the several trees on the north entry side of the garden, those actually set in the lawn, which were carefully pruned (NG2-1).

Review of the series of color photographs, nearly all taken at the height of spring bloom, reveal the true passion behind the plantings. Colored photographs indicate a highly colored garden. This is striking in the selection of conifers, which include golden hinoki cypress, Chamaecyparis obtusa 'Aurea', golden sawara cypress, and Colorado Blue Spruce, Picea pungens. In particular, the golden cypress contrasts against the pink-flowered 'Kanzan' cherries. There are flowering rhododendrons and azaleas. There are lots of flowering perennials. Atypical to Japanese gardens, which feature bursts of seasonal color against a backdrop of evergreens, Kuni clearly loved flowers.

Plants grew, and additional plants were added to the mountain. Comparison of NG1-1 and NG1-4 demonstrate that over time, the conifers began to dominate the other plantings on the mountain. The pine trees were tall and sprawling. The golden hinoki cypress at the base of the mountain began to diminish the scale of the mountain, while screening the mountain from the street. The slow-growing yew remained in relative scale in early photos; today the now 15-foot tall plant is the only tree specimen left on the mountain (NG1-6).

Developing a comprehensive list of original plants would be a next step to preparing a planting plan for restoration.

South Japanese Garden

The South Japanese Garden was completed after the North Japanese Garden, although it seems likely that the south garden was not a completely separate effort. As the rockery wraps around the south side of the lawn, the rockery transitions to the south garden. The south garden begins with little relationship to the house and walks; indeed, the walk terminates at the light pole and never wraps around the house, or transitions to a garden path, as if the South Garden was just set on the edge of the yard.

Descriptions of the South Garden are based mostly on the available historic photographs. The rockery and garden was generally demolished when an access route on the south side of the South Island was constructed in 1992. However, the north side of the garden partially remains, in particular the evocative segment of stonework described below immediately south of the walk. Edges of the former pond are visible at the perimeter of the lawn.

Structure

The best early views, SG-1 and SG-2 show the south garden soon after completion (appear to be same day, judging by the clothes). Similar to the North Garden, the soil was scooped out to create a long pool, and the soil was mounded to create a hill at 5-6 feet above the front lawn. However, distinct from the North Garden, here there are not jagged vertical stones lining the pond or stepping up the hill. The rounded granite boulders are largest at the pond edge at the base of the hill. The ridgeline is not as exaggerated as the North Garden, and there are no towering stones atop. The stones that line the lawn edge are also more rounded and in keeping with the overall collection of stones. The effect is a bit more comprehensible and cohesive as a design.

Plantings

As represented in later color photographs, plantings are similar to those installed on the North Garden, with colorful conifers and an abundance of flowering perennials. However, there are fewer fastigiate conifers, highly pruned conifers, or weeping cherries. The garden is set close to the line of 'Kanzan' cherries and conifers and later, roses against the fence (SG-11, SG-12). Over time, the cherries and conifers created a significant backdrop for the South Garden, and reinforced the effect of the South

Mountain shielding the yard from the view of the fields just beyond.

The few images of the South Garden represent the space as a bit more familial, and private. The SG-2 and SG-3 photos are celebratory, likely weddings, although the first lineup is a bit more youthful and stylish, all young adults without children, the second, all are a bit older, a bit heavier, and with children in tow.

A photo of two women and a small boy, perched on a large stone is simple and vibrant (SG-5). Looking more closely, the stone is set within small conifers, blooming azaleas, with a Japanese Fatsia plant and Japanese maple. Today, the stone and Fatsia plant and likely the same conifers are still there, the Fatsia and conifers towering over the stone (SG-7).

JAPANESE GARDEN FEATURES CATALOG

The purpose of the following catalog of character-defining exterior features is to facilitate compliance with the goal of the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and *Guidelines for the Treatment of Cultural Landscapes*, which is to preserve the site's distinguishing visual and physical character.

This catalog facilitates quick reference during projects to identify which features remain intact and are important to maintaining the character of the grounds, and which have been altered and as such are more adaptable.

Features are described under the general categories defined below:

- House and Grounds
- Front Yard
- North Japanese Garden
- South Japanese Garden

The catalog addresses:

- Character-defining features
- Alterations

House and Grounds

Character defining features

- Perimeter 'Kanzan' Cherry Trees.
- Alternating Conifers.
- Row of Roses at Barreling plant, at South Garden perimeter.
- North Triangle area, ringed by trees, with various installations, including a prominent Blue Atlas Cedar, an experimental 'moss' garden, brick office building.
- Kitchen Garden, located outside the perimeter of trees but north of the strawberry fields.
- Lawn, well graded, planted, maintained and watered.

Alterations

- Kitchen Garden, no longer extant, formerly located outside the perimeter of trees but north of the strawberry fields, by 1959 the area had largely been overgrown by trees along the south side of the parking area.
- Lawn, well graded, planted, maintained and watered.
- Most Cherry Trees removed.
- Most conifers removed; those that remain are towering over the property. Conifers that were marking the south edge of the garden are now on neighboring property.
- All roses removed.
- Kitchen Garden indistinct. Later orchard plantings are only remaining plants, but planted after the period of significance.
- Lawn areas remain, but have become indistinguishable for surrounding gravel drive and walks, etc.

Front Yard

Character defining features

- Structure, the general structure remains similar to original photographs.
- Perfect grading – area filled, leveled.
- Stone steps up to the lawn, with 4' long treads, the stone worked and set without mortar.
- Rockery, likely a precursor to construction means and methods utilized for the Japanese Gardens. Granite stones at NE corner are most prominent, and well placed.
- Formal concrete entry walk.
- Concrete planters at edge of steps to house.
- Light posts are dominant feature of property.
- Perfect lawn - grassed, maintained, watered.
- Survivor plantings – Juniper, cotoneaster, ferns.
- Sole dissected red leaf Japanese maple (Acer palmatum – confirm cultivar).
- Sawara cypress at the western end of the rockery is indicated as a dwarf shrub in early photos.

Alterations

- Concrete planters missing.
- South light fixture missing from the top of the post, the globe remains in the basement of the

house. Not sure whether lights work.

- Lawn is not maintained as intended.
- Most plantings lost over time.
- Sawara cypress now looms over the site at sixteen feet and 12 inch caliper.

North Japanese Garden

Character defining features

- Soil mounded to create 6-8 foot tall hill.
- Major structure and grading intact.
- Stonework remains.
- Narrow stone path up north and south side of mountain.
- East and west pond retain original configuration, with carefully set vertical jagged stones, including 'Bird Stone' on west.
- Waterfall stone remains.
- Water feature mechanics were fairly minimal. There was no catchbasin for draining the pools (confirm). Piping and a connection to the property's well water (confirm) was extended to the west side of the island to provide water for a water fall near the 'bird' stone, visible in NG1-8.
- Three shaped pines near the top of the mountain, exaggerating the height.
- Diversity of conifers, including columnar trees, such as the yew, dwarf trees, weeping trees, colorful trees.
- Brightly colored flowering rhododendrons and azaleas.
- Flowering perennials.

Alterations

- Most plantings lost over time.
- Pine trees grew to be tall and sprawling. Pines missing, although stumps may remain.
- Conifers began to dominate the other plantings on the mountain. Most conifers missing, except for the now 15-foot tall yew plant.
- Concrete at pond needs to be repaired or replaced. Pond bottom is cracked, no longer watertight.
- No functioning fountain.

South Japanese Garden

Character defining features

- Soil was mounded to create a hill at 5-6 feet above the front lawn.
- The best early views, SG-1 and SG-2 show the south garden soon after completion (appear to be same day, judging by the clothes). Similar to the North Garden, the soil was scooped out to create a long pool, and the. Large rounded granite boulders at base of mountain – used for photographs.
- Rounded stones lining lawn edge.
- Set within line of cherry trees and some conifer trees, with a row of roses at perimeter.
- Similar to North Garden, includes colorful conifers, an abundance of flowering shrubs.
- Fewer fastigiate conifers, highly pruned conifers, or weeping cherries.
- The garden is set close to the line of 'Kanzan' cherries and conifers.
- Over time, the cherries and conifers created a significant backdrop for the South Garden, and reinforced the effect of the South Mountain shielding the yard from the view of the fields just beyond.
- Large round stone set within small conifers, blooming azaleas, with a Japanese Fatsia plant and Japanese maple.

Alterations

- The rockery and garden was generally demolished when an access route on the south side of the South Island was constructed in 1992.
- North side of the garden partially remains, in particular the evocative segment of stonework and large round stone south of the walk.
- Edges of the former pond are visible at the perimeter of the lawn. Need to investigate whether concrete at pond remains, would need to be repaired or replaced.
- Plants removed when majority of rockery and garden demolished.
- Most other plantings lost over time.
- Large stone remains, with Fatsia plant and likely

the same conifers are still there, the Fatsia and conifers towering over the stone.

- Exceptions are some cherry trees and conifer trees, now located on neighboring property.

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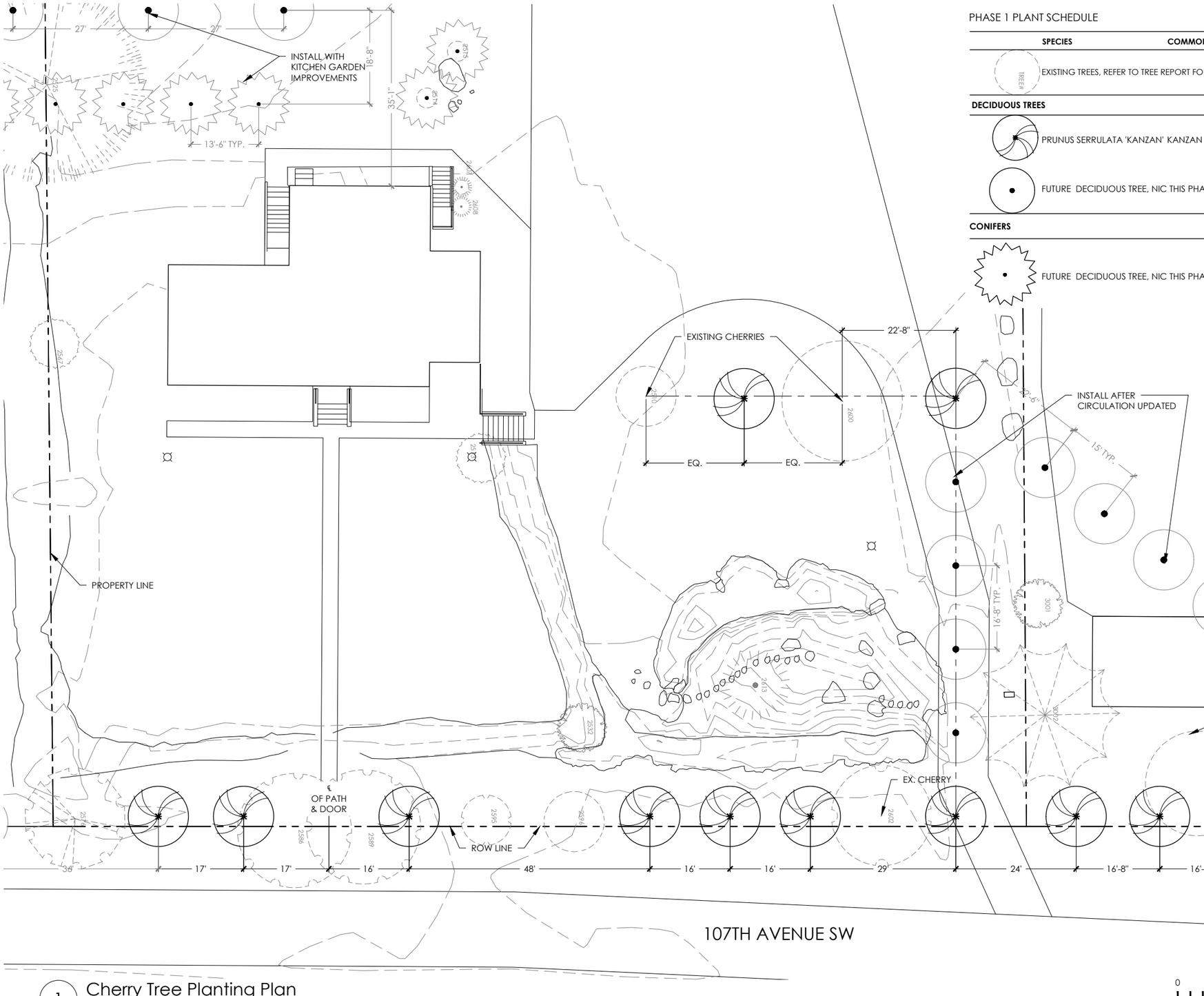


PHASE 1 PLANT SCHEDULE

	SPECIES	COMMON NAME	SIZE	COMMENTS
	EXISTING TREES, REFER TO TREE REPORT FOR IDENTIFICATION			
DECIDUOUS TREES				
	PRUNUS SERRULATA 'KANZAN'	KANZAN CHERRY	TBD	STAKE TREE LOCATION FOR CONFIRMATION WITH COMMITTEE BEFORE PLANTING
	FUTURE DECIDUOUS TREE, NIC THIS PHASE, APPROX. LOCATION			
CONIFERS				
	FUTURE DECIDUOUS TREE, NIC THIS PHASE, APPROX. LOCATION			

NOTE:
1. STAKE PROPERTY LINES BEFORE PLANTING.
2. LOCATE ALL NEW TREE TRUNKS 2' MIN. INSIDE PROPERTY.
3. AVOID CONFLICTS WITH UTILITY LINES

Call before you dig 8–1–1
or 1–800–424–5555
UNDERGROUND SERVICE (USA)

1 Cherry Tree Planting Plan
scale 1" = 10' - 0"

0 10 20

Karen Kiest | Landscape Architects
111 west john street suite 306
seattle washington 98119
tel 206 323 6032

STATE OF WASHINGTON · KAREN S. KIEST · NO 850 EXP. 12/10/2017 · LICENSED LANDSCAPE ARCHITECT

Mukai Garden
VASHON ISLAND, WA

Cherry Tree Planting Plan

job name: MUKI
scale: As Noted
date: Feb 17 2017

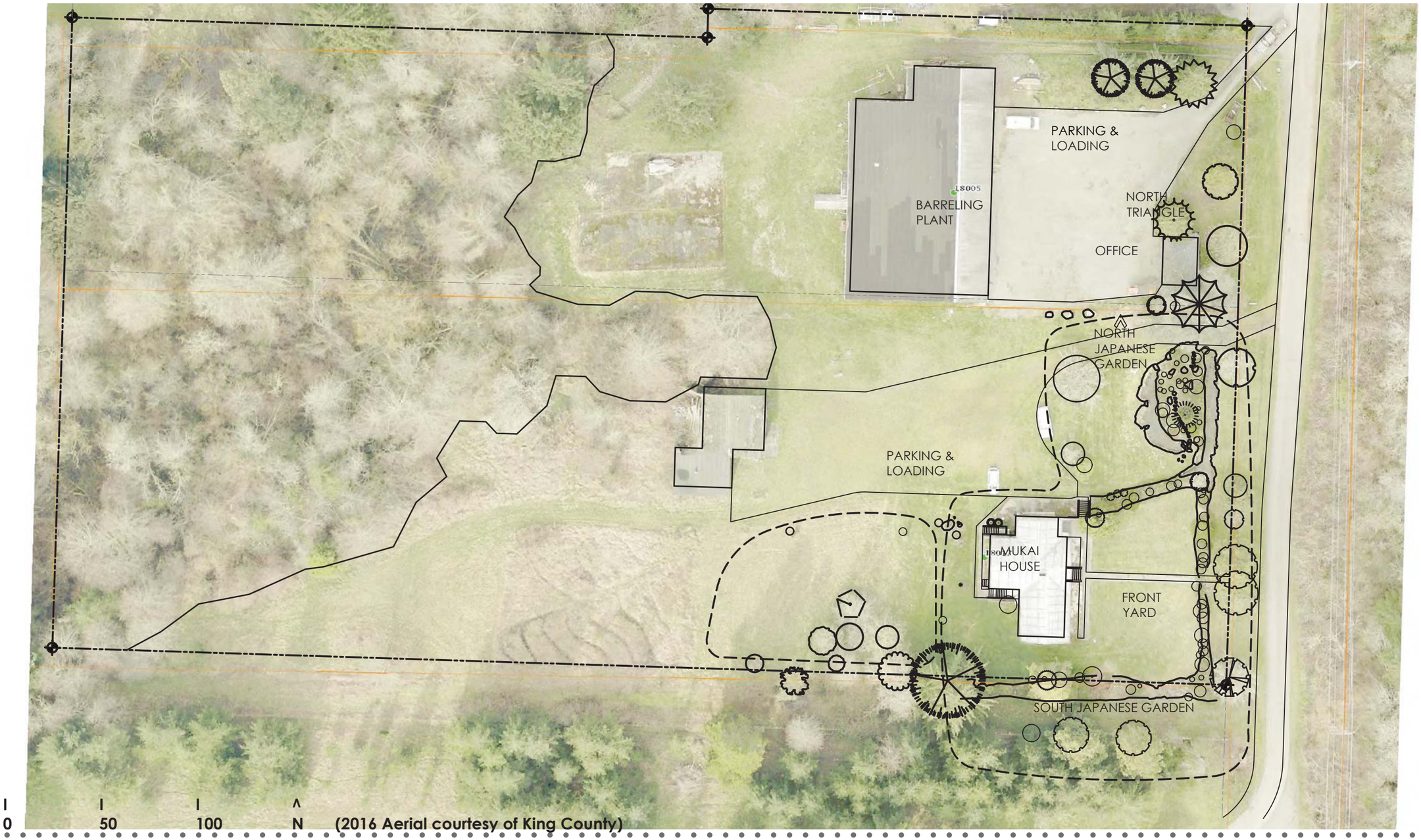
issue: date:

sheet:

L1.1

MUKAI FARMSTEAD | Karen Kiest Landscape Architects

1936 HOUSE AND GROUNDS



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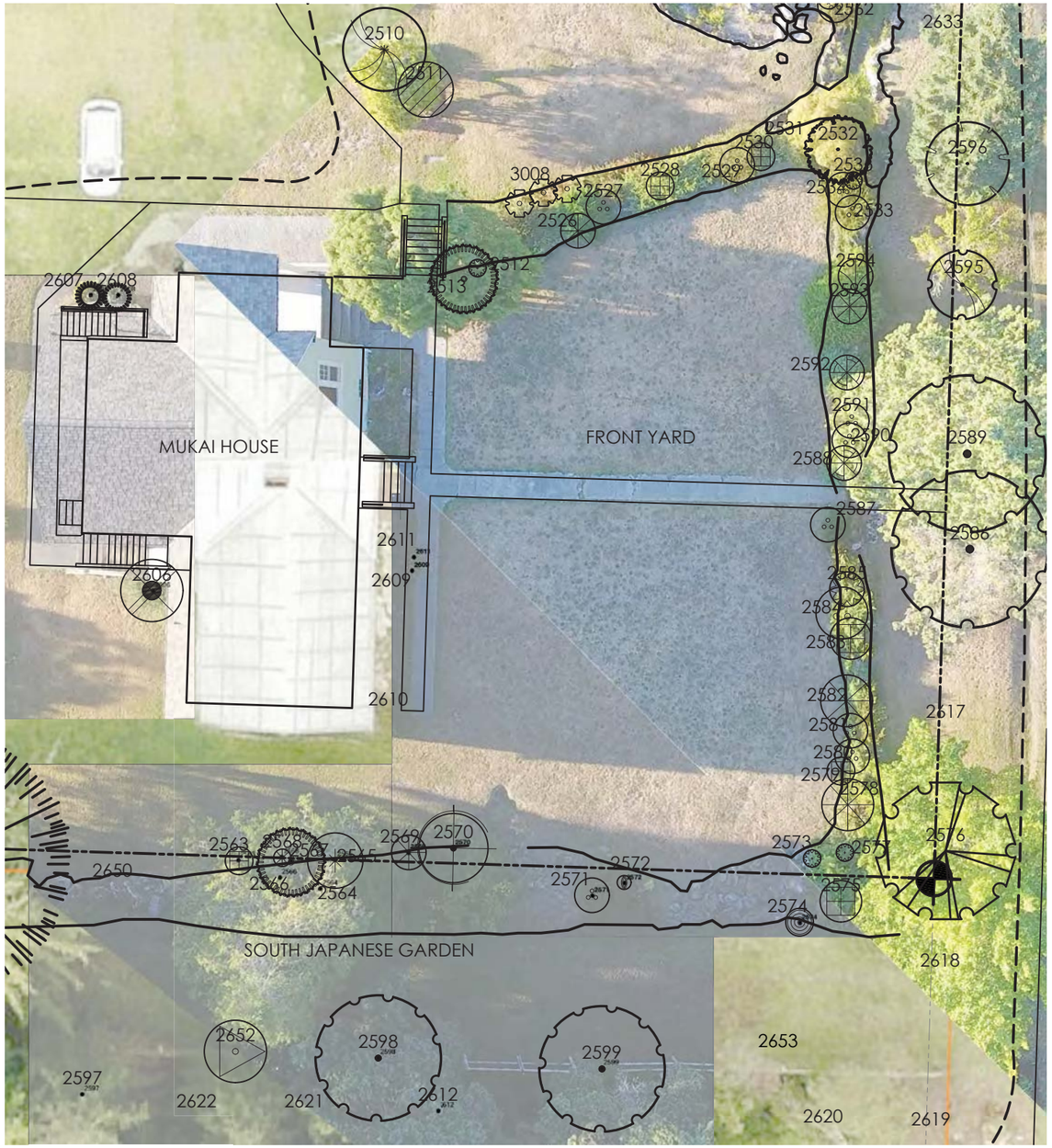
0 50 100 N (2016 Aerial courtesy of King County)

MUKAI FARMSTEAD | Karen Kiest Landscape Architects **2016 HOUSE AND GROUNDS**

EXISTING PLANT LEGEND

SPECIES	COMMON NAME	NUMBER
STUMP		2553, 2514, 2515, 2516, 2605, 2615, 2542, 2574
DECIDUOUS TREES		
unidentified tree		2519
Acer circinatum	Vine Maple	3001
Acer japonicum	cut leaf Japanese maple	2532
Alnus rubra	Red Alder	2523
Arbutus menziesii	Madrona	2522
Ficus carica 'Brown Turkey'	Brown Turkey Fig	2521
Malus	Gravenstein Apple	2524
Prunus	cherry	2510, 2600
Prunus	Italian Prune	2518
Prunus	Japanese Plum	2520
Prunus serrulata Kanzan	Japanese cherry	2595, 2602
Pyrus	Shinseki Asian Pear	2517
Ulmus alata	Winged Elm	2576
TREES ON 1936 AERIAL		

SPECIES	COMMON NAME
CONIFERS	
Unknown conifer	Unknown Conifer
Cedrus atlantica	Atlantic Blue Cedar
Chamaecyparis pisifera	Sawara Cypress
Cryptomeria	Cypress
Pseudotsuga menziessii	Douglas Fir
Ptseuga myrtensia	Hemlock
Taxus baccata	Irish Yew
Taxus baccata aureata	Golden Yew
Thuja plicata	Western Red Cedar
SHRUBS & PERENNIALS	
Adiantum sp.	Maidenhair Fern
Calluna vulgaris	Heather
Camellia	Camellia
Chaenomeles sp.	Flowering quince
Chamaecyparis pisifera "Golden Mop"	Golden Threadleaf C



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(2016 Drone image courtesy of Cindy Stockett)

MUKAI FARMSTEAD | Karen Kiest Landscape Architects

2016 FRONT YARD AND SOUTH JAPANESE GARDEN

EXISTING PLANT LEGEND

SPECIES	COMMON NAME	NUMBER
STUMP		2553, 2514, 2515, 2516, 2605, 2615, 2542, 2574
DECIDUOUS TREES		
unidentified tree		2519
Acer circinatum	Vine Maple	3001
Acer japonicum	cut leaf Japanese maple	2532
Alnus rubra	Red Alder	2523
Arbutus menziesii	Madrona	2522
Ficus carica 'Brown Turkey'	Brown Turkey Fig	2521
Malus	Gravenstein Apple	2524
Prunus	cherry	2510, 2600
Prunus	Italian Prune	2518
Prunus	Japanese Plum	2520
Prunus serrulata Kanzan	Japanese cherry	2595, 2602
Pyrus	Shinseki Asian Pear	2517
Ulmus alata	Winged Elm	2576
TREES ON 1936 AERIAL		

SPECIES	COMMON NAME
CONIFERS	
Unknown conifer	Unknown Conifer
Cedrus atlantica	Atlantic Blue Cedar
Chamaecyparis pisifera	Sawara Cypress
Cryptomeria	Cypress
Ptseudotsuga menziessii	Douglas Fir
Ptseuga myrtensia	Hemlock
Taxus baccata	Irish Yew
Taxus baccata aureata	Golden Yew
Thuja plicata	Western Red Cedar
SHRUBS & PERENNIALS	
Adiantum sp.	Maidenhair Fern
Calluna vulgaris	Heather
Camellia	Camellia
Chaenomeles sp.	Flowering quince
Chamaecyparis pisifera 'Golden Mop'	Golden Threadleaf C

I 0 I 20 I 40 ^ N (2016 Drone image courtesy of Cindy Stockett)

MUKAI FARMSTEAD | Karen Kiest Landscape Architects

2016 NORTH JAPANESE GARDEN

View from the SE of House and Garden and Barrelling Plant with strawberry fields in front. Image dated 1937, but small size of conifers at building indicate much earlier (image courtesy of the Friends of Mukai)

The rockery wall along the upper lawn's east side, with conifers growing, indication of sidewalk, and Cherries in Bloom. Note taller conifers. (Date ca 1933. image Friends of Mukai, HALS Fig. 11)

Color image The rockery wall along the upper lawn's east side, with conifers growing, indication of sidewalk, and Cherries in Bloom. (Date: Post-war , image Friends of Mukai, HALS Fig. 11)

The rockery wall along the upper lawn's east side, with elm tree obscuring view. (11/16, KKLA)

Kuni and Masa? (labled as B.D.) in front of the residence's eastern façade. Stone slabs as steps, concrete walk beyond. Note clipped conifers at door, indication of sidewalk (Date ca. 1929, image Friends of Mukai, HALS Fig. 12)

Stone slabs still serve as steps, concrete walk beyond. No plantings at house remain. (11/16, KKLA)

House and garden from East. (Date ca. 1929, image courtesy of the Friends of Mukai)

Figure 13. Kuni on the rockery with the north island's east pond in the foreground, and Japanese Maple at corner. (Date ca. 1929, image courtesy of the Friends of Mukai, HALS Fig. 13)

B.D. and Kuni (confirm) with the east pond and Japanese maple. (Date ca. 1929, image courtesy of the Friends of Mukai, HALS Fig. 16)

Rockery with sole remaining Japanese Maple at corner. (11/16, KKLA)

Color image, Japanese maple at the corner of the el-shaped rockery with the eastern pond in the foreground, and large Chamacyparis beyond. (Date post war?, image courtesy of the Friends of Mukai, HALS Fig. 16)

Japanese maple at the corner of the el-shaped rockery with the eastern pond in the foreground, and large Chamacyparis beyond. (11/16, KKLA)

The north island seen from the west with 107th Avenue SW and orchard in the background. Note stones and plants in lawn, yound cherry trees, very large stone on hill. (Date ca. 1929, image courtesy of the Friends of Mukai HALS Fig. 5)

Looking northeast at the north island and lower lawn with cherry trees and orchards in the background. Note narrow Yew on top of hill. (Date pre-war, image Friends of Mukai, HALS Fig. 9)

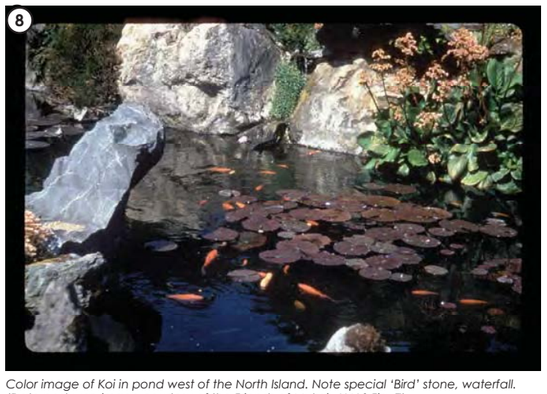
Figure 6. A snow-covered north island seen from the west. (Date unknown, image courtesy of the Friends of Mukai, HALS Fig. 12)

Color image, looking northeast at the north island and lower lawn with blooming cherry trees in the background. Note narrow Yew on top of hill. (Date post-war, image Friends of Mukai, HALS Fig. 15)

Color image, looking NE at Kuni, with admin. building and blue atlas cedar beyond (Date post-war, image Friends of Mukai)

Looking northeast at the north island and lower lawn, with Yew only remaining tree on island. with few cherry trees in the background. (11/16, KKLA)

North Garden view of west pond. (Date post-war, image courtesy of the Friends of Mukai)



Color image of Koi in pond west of the North Island. Note special 'Bird' stone, waterfall. (Date post-war, image courtesy of the Friends of Mukai, HALS Fig. 7)

Special 'Bird' stone. (11/16, KKLA)

Looking southwest at the Mukai residence, lawns, and Kuni's Japanese gardens with strawberry fields beyond. May be corn in kitchen garden to west? (Date ca. 1930, image courtesy of the Friends of Mukai, HALS Fig. 4)

House from the North (Date ca. 1930, image courtesy of the Friends of Mukai)

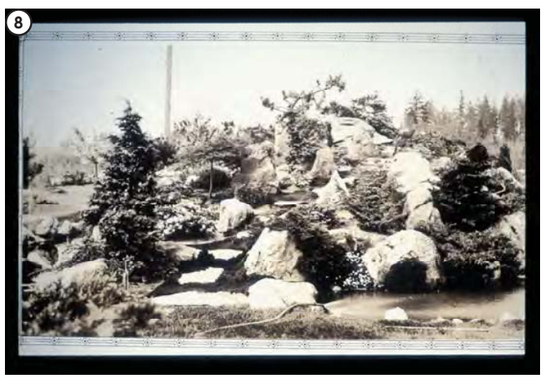
View from NW of North Garden, and 3 large stones in lawn. Note orchard beyond property. (Date ca. 1930, image courtesy of the Friends of Mukai)

Color image, view from NW of north island and west pond. (Date post-war, image Friends of Mukai, HALS Fig. 15)

BD, grandson Milton?, and Kuni (or third wife?), for reference. (Date TBD, image courtesy of the Friends of Mukai)

BD, grandson Milton, Kuni? and Cherry Trees - Gravel indicates likely driveway location (Date ca. 1940 per Milton's age, size of cherries) image courtesy of the Friends of Mukai)

Looking north at the north island with the plant beyond. (Date 1930s, image courtesy of the Friends of Mukai)



Looking north at the north island and the stone path leading to its summit. Note hose filling pool, pruned pines on summit. (Date unknown, image courtesy of the Friends of Mukai, HALS Fig. 8)

North Garden path up Mountain (Date unknown, image courtesy of the Friends of Mukai)

Looking north at the north island. Hard to see stone path leading to its summit. (11/16, KKLA)

B.D. and Guest looking at south island, with row of cherry trees, and Chamaecyparis, and fields beyond as seen from above (from ladder/truck?)(Date ca. 1929, image courtesy of the Friends of Mukai)

Guests on the south island as seen from the residence's eastern entrance, with light pole and urns at entry. (Date ca. 1929, image courtesy of the Friends of Mukai, HALS Fig. 2)

Guests at south island, with cherry trees, and Chamaecyparis,(Date ca. , image courtesy of the Friends of Mukai)

South island as seen from the residence's eastern entrance, with Chamaecyparis beyond, with light pole, no remaining urns. (Date ca. 1929, image courtesy of the Friends of Mukai, HALS Fig. 2)

Could this be Mamie, Milton, and Kuni on stone at south garden, with J. Maple, Azaleas, Fatsia plant, etc. . (Date ca.late 1930s, image courtesy of the Friends of Mukai, HALS Fig. 18)

BD and grandson Milton at stone at South Garden (Date ca. 1940 per Milton's age, image courtesy of the Friends of Mukai)

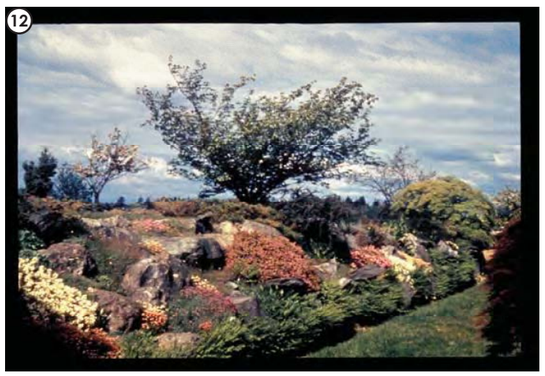
Stone at south garden, with Fatsia plant, Chamaecyparis, etc. . (11/16, KKLA)

Color image of SE corner of the house, South Garden, etc. showing rose hedge along property line. (Date: Post-war , image Friends of Mukai, HALS Fig. 11)

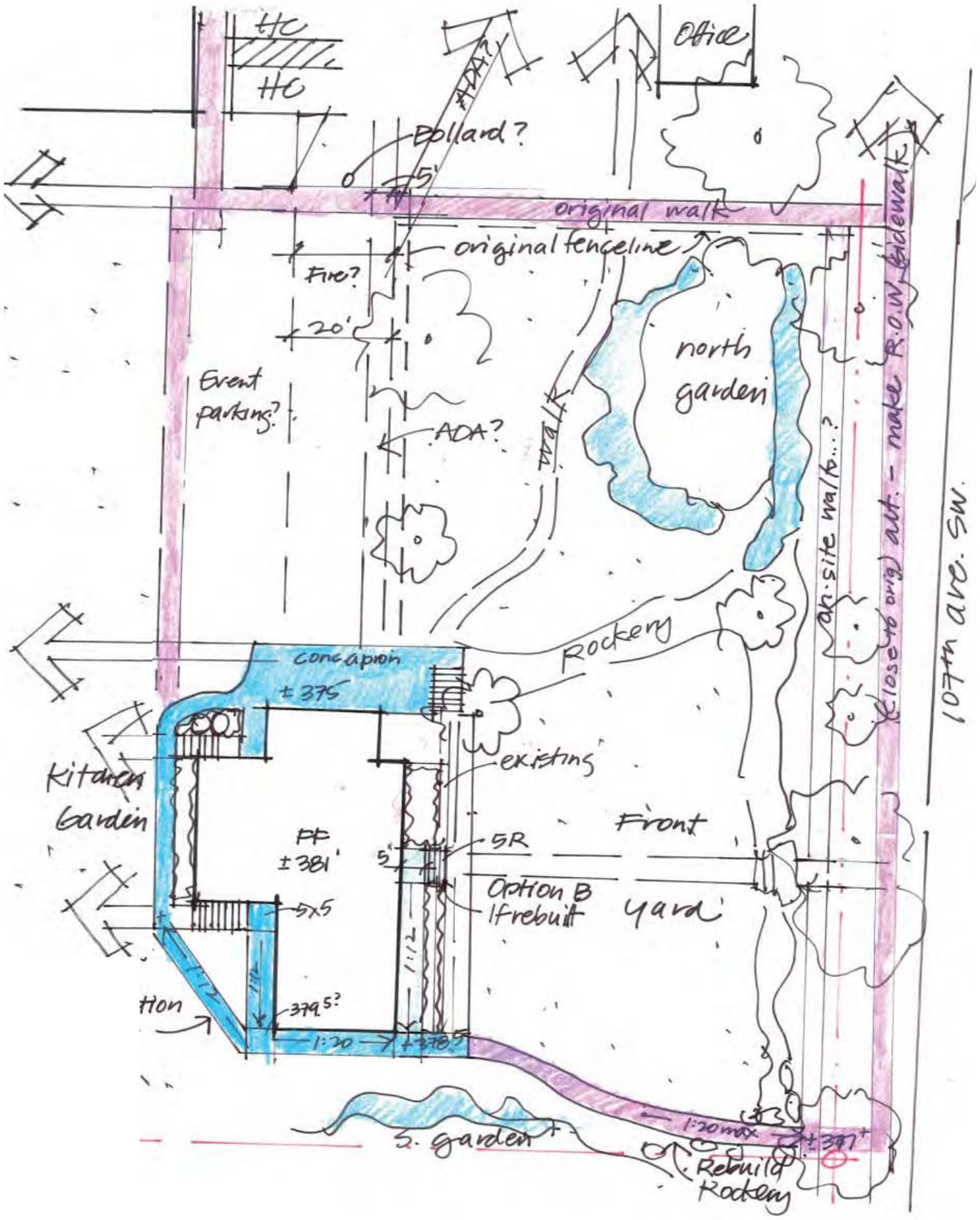
East end of pond at South garden. Note Japanese maple. (Date post-war, image courtesy of the Friends of Mukai)

Close up, Japanese maple. (Date post-war, image courtesy of the Friends of Mukai)

Looking west at south garden, with cherry trees beyond,(Date post-war?, image courtesy of the Friends of Mukai)



Color image looking soutwest at south garden. (Date post-war, image courtesy of the Friends of Mukai, HALS Fig. 17)



ACCESSIBLE ROUTE

ACCESSIBLE ROUTES CONCEPTS

The sketch at left provides an introduction to the need for providing accessible routes within the site and to the buildings in anticipation of public use of the site. This will ultimately be a complex process that must integrate universal access with programming and site circulation, grading, and layout.

The blue identifies an immediate short term access to the house from the concrete apron. This should consist of a hard surface meeting universal access requirements.

The pink identifies a hard surface or ADA gravel route from accessible parking at the Bottling Plant to the house and around the house and grounds.

The walk along 107th historically never featured a nicely finished walk/access route. The driveway developed over time to become an access road once the county purchased the right of way. Future thinking about the role of this route for site access will be important for the visual character of the site and facilitating universal access.

Where the current driveway is proposed to be removed this circulation route could be retained as the accessible route.

Where the south garden rockery was demolished, the integration of an accessible route should done as part of any new work to provide an accessible route to the front yard and south garden.

Historic photograph of the barreling plant. Courtesy Puget Sound Regional Archives.

E. Barreling Plant and Office Technical Guidance

This appendix provides technical guidance for the barreling plant and office to support ongoing stewardship and decision-making. Refer to the Historical Context for additional background on the period of significance.

- Treatment approach: Rehabilitation
- Period of significance: 1927-1946, encompassing original construction, period of growth, and ending with construction of the brick office building across from the plant

Refer also to Appendix C: House Technical Guidance for paint analysis data on the exterior of the barreling plant.

At the time of this report preparation the property sale to King County has not been finalized. Frank Zellerhoff, the current owner graciously permitted site access to Friends of Mukai, Cardinal Architecture, and Artifacts Consulting, Inc. for a preliminary walk through of the building. The following data stems from that walk through. Completion of this technical guidance once ownership has been finalized is recommended. Refer to the Barreling Plant Report prepared by Cardinal Architecture for additional physical and condition information.

Degree of Extant Character-defining Spaces and Features

The spaces and features of the buildings remain largely intact.

The exterior of the barreling plant retains a high level of integrity. Windows, sliding doors, deck, scale, concrete cistern, overall form, parapet and roof form all remain intact. There are several alterations including a north and a west addition, as well as enclosure of the south end of the deck. The interior of the building has added partition walls subdividing the space, with added wall finishes in the west addition.

The exterior of the office retains a high level of integrity. Windows, brickwork, roof form, doorway, and front concrete sidewalk all remain intact. The interior of the building retains its utilitarian finishes and partitions.

Condition Assessment Findings

Overall the building remains in fair condition. The current owner improved the site drainage system and has made significant upgrades to the existing pier foundation system supporting the building.

The following list some of the key condition issues for the barreling plan. Refer to Treatment Recommendations for a more detailed listing of condition issues and stems to correct them.

- Window and door repairs to address deferred maintenance and improve energy efficiency.
- Wracking and out-of-plane movement (15 degrees) to the east.
- Pier foundation system supporting the building and how to reconcile it with seismic upgrades.
- Paint failure on the building's exterior walls.
- Leak in the roof.

The following list some of the key condition issues for the office. Refer to Treatment Recommendations for a more detailed listing of condition issues and stems to correct them.

- Interior water damage to finishes and walls.
- Absence of a heating system for the building.

CARDINAL
ARCHITECTURE PC

Barreling Plant Report
21931 107th Avenue SW
Vashon Island WA

31 October 2016

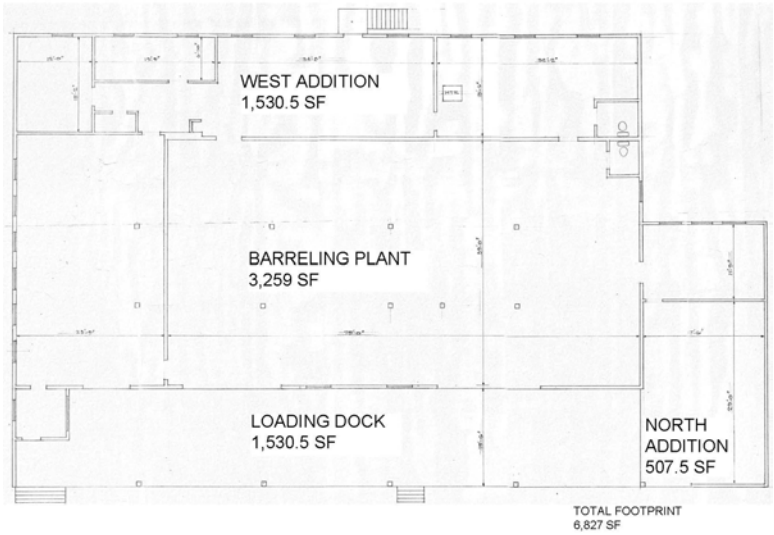
Introduction
On 12 October 2016, Jim Cary of Cardinal Architecture toured the Barreling Plant structure with Spencer Howard of Artifacts Consulting and the current owner, Frank Zellerhoff. The property is currently pending sale from the current owner, Zellerhoff Construction, to King County. The purpose of the tour was to walk through the building site and building and make an initial assessment regarding its current condition and its potential for future use. The following are initial observations and recommendations.

Site
The immediate barreling plant site is either a gravel loading area or tall grasses. The site slopes down from the southeast corner at the highest to the northwest corner where it is lowest, and the grade drops approximately 4-5 feet from high corner to low corner. The current owner indicated that the area below the building used to collect site water, especially during high ground-water conditions, but that he has graded and added drainage to help the site shed surface water. There is currently a newer area drain structure at the northwest corner of the existing structure, which is fed by a gravity line leading from the downspouts and site drainage. There is a concrete cistern on the west side of the building that Zellerhoff believes was used to collect gray water from fruit processing.

Zellerhoff said that the site is served by a septic tank and drain field. The septic tank is under an earth mound on the west side of the building, and the drain field is located to the southwest of the tank. Zellerhoff also said that he installed a new 2” water line from just east of the existing office building to the southeast corner of the barreling plant. The line then continues along the east side of the building. Electricity arrives at the building to a pole at the southeast corner of the building. The building is served with 2 basic panels.

Zellerhoff noted that there is a large amount of buried construction debris, mostly concrete rubble, on the site. He believes that it was dumped and buried on site as part of the Mukai’s construction business.

Also on the site, to the west of the building, is a large concrete pad. Zellerhoff said that the pad was the foundation and floor for greenhouses. Some of the greenhouse steel pole structure is still embedded in the slab.



Barreling Plant Building

The original building was constructed in the 1920s, and includes the original rectangular structure, an addition on the west side, and an addition on the north side. The original building consisted of a 3,259 SF interior space and a 1,530.5 SF loading dock on the east side. A 1,530.5 SF addition was built on the west side, and a 507.5 SF addition was built on the north side. At the time of this report, we do not have the exact dates that the additions were built, however, the 1933 aerial photo shows just the barreling plant and loading dock, and the 1959 aerial photo shows the original structure with both north and west additions. The total footprint of the structure is approximately 6,827.5 SF. Access to the building is from a stair to the loading dock on the east side. There are several doors and barn doors on the east side for entry and access. There is a single door on the west side of the structure, with a dilapidated stair leading up from the ground below.

Foundation, Pier Structure & Floor Structure

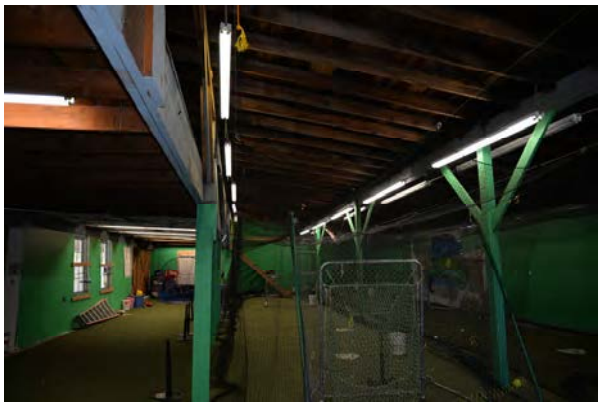
The building is supported by many wood posts. The original posts were typically 6x8s, and they were supported by rock foundations. Over time, and recently by Zellerhoff Construction, some of the rocks were replaced with 24”x24”x12” deep concrete footings. The original posts were also replaced with pressure treated wood posts, where necessary. There is 2x4 cross bracing under the structure that is not uniform and appears to be placed randomly. The posts support a wood floor structure of 6x8 beams, which support 2x10 joists at 16” O/C. The floor deck is composed of 2x6, T&G car decking. The decking has been replaced with nominal lumber where it has failed due to weathering or stress. In some areas of the building, OSB sheathing was installed over the car decking to create a smoother walking surface. In

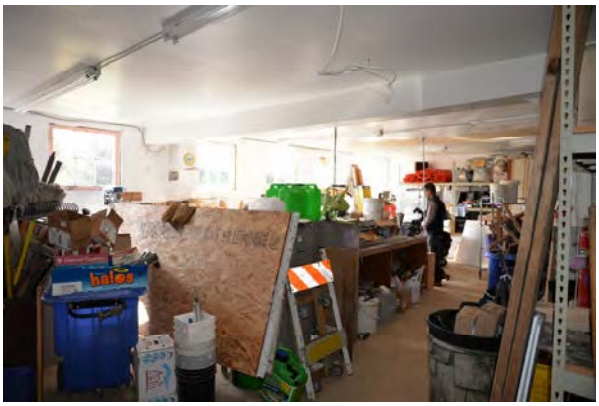
parts of the floor structure, fiberglass batt insulation was installed with netting to hold it in place. There is no vapor, moisture or weather barrier.

Exterior Walls

The typical exterior walls consist of 2x6 wood studs at 24" O/C, with wood skip sheathing and drop shiplap horizontal wood sheathing. Existing paint is worn and peeling on all exterior faces. Some of the walls include fiberglass batt insulation and an interior finish of gypsum wall board. There is no vapor barrier or weather barrier installed.

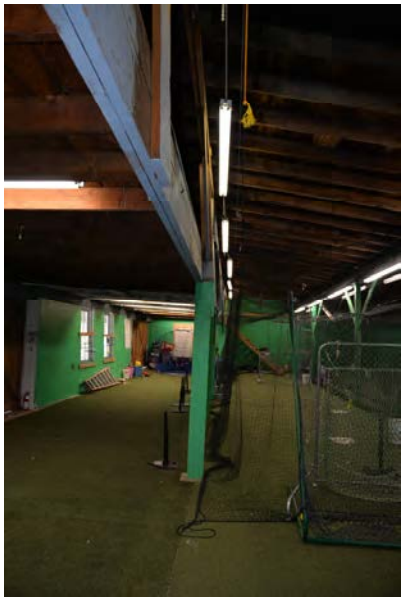
Exterior windows are typically single sash, single pane, with true divided lites. Some windows are operable in that they are installed with hinges at the bottom and a chain stop at the top, and operate as hopper windows. There are several double-hung windows on the east side. There are operable doors and sliding barn doors on the east side, and a single operable door on the west side.





Interior Structure
The roof is supported by the exterior walls, interior posts, and exterior posts at the loading dock. The posts are typically 6x6, and are spaced 15 or 20 feet on center. There are interior knee braces supporting many of the interior columns. There are very few interior walls, and they are typically recent construction, and do not provide structural support. The south portion of the original structure and the west addition were finished with gypsum wall board and the walls are insulated with fiberglass batt insulation. There is a loft on the east side of the original structure with a floor of 2x10 joists and plywood sheathing. The loft is supported by interior columns and the exterior east wall.

Roof Structure & Roofing
Interior columns support 6x12 beams, and 2x8 rafters at 24" O/C. There is wood skip sheathing and typically modern OSB sheathing installed on top of that. The existing roofing is a torch-down membrane that is in acceptable condition over the field. The edge condition does not appear to be holding up, as it does not look as though it is properly installed at the eave and rake. One roof leak was evident over the northwest corner. Most of the roof is uninsulated, and there may be batt insulation over the western addition above the gypsum wall board ceiling.



Concerns
- Zellerhoff noted that during one of the previous earthquakes, the building shifted east, and this shift is apparent when putting a level on one of the interior posts. The lean to the east is as much as 15 degrees. The lean is apparent throughout the structure from the west side all the way to the east side. Many old buildings lean, however, the concern is that the structure is not sufficiently braced for lateral loads. The proposed structural analysis will provide recommendations for correcting the lean and for reinforcing the structure for lateral loading.
- The main floor area of the original building has been leveled by replacing foundations and posts below, however most of the remaining floor area requires leveling and foundation/post replacement. The building was likely constructed on top of posts for several reasons. One is that it lifted the building up to a suitable height for a loading dock. Two is that it would have been cheaper to build with posts that with a concrete or pony wall foundation. Three is that the building is up and above ground water conditions. In addition to the leaning structure, the post construction does not appear to have many mechanical connections or lateral support. The proposed structural analysis will provide recommendations for reinforcing the foundations, posts, and lateral support.

- The flooring is 2x6 T&G car decking, and in some cases the flooring, especially at the east loading area, has deteriorated or is failing. The proposed structural analysis will provide recommendations for a functional floor system.

Next Steps

1) Prepare as-build drawings to record the existing structure and provide backgrounds for structural analysis and repair. Cardinal has prepared a proposal for this scope of work.
2) Prepare an historic structures report to record the portions of the building with historical value and determine the age of each of the building components. Artifacts will prepare this information.
3) Prepare a structural analysis to review existing conditions and propose a structural repair plan. Swenson Say Faget Structural Engineers has prepared a proposal for this scope of work.
4) Conduct a hazardous materials survey to determine if there are any existing conditions or materials that should be abated.
5) Conduct an electrical review by a licensed electrician to determine if there are existing conditions that are dangerous and should be addressed immediately.
6) Review potential building uses to determine the scope and level of building repair and reconstruction necessary to meet current building codes and energy codes. This is an ongoing effort to determine use and possible tenants for the barreling plant.
7) Develop a construction project that incorporates the structural repair plan and the building repair plan. This project could be organized to stabilize the structure or to renovate the structure for a new use. The design and construction scope will depend on the preferred ending condition of the project.

Summary

Vacant or unused structures in the Pacific Northwest require attention to maintain their integrity. To keep them in a stable condition, they require a competent roof, heat, site drainage, safe electrical, and site and building security. The existing roof is mostly competent. Heating should be maintained to keep the structure relatively dry. Site drainage has been improved, and is currently adequate. The existing electrical should be reviewed by a licensed electrician to remove any dangerous conditions. The building should be secured and monitored to prevent unwanted and dangerous intrusion.

The building should be stabilized and secured, based on the criteria above, until a more permanent use is determined, however it does not make sense to fully restore the property until the future use is determined. There can be a wide range in construction scopes and user needs based on the tenant and use. Here are (3) scenarios to consider for the project.

Scenario 1 –Repair Original Barreling Plant & Loading Dock, Remove Additions

This scenario would remove the north and west additions, and repair the original 3,259 SF structure which includes the 3,259 SF barreling plant and 1,530.5 SF loading dock. The building would be braced and repaired, and left as an unconditioned space. This would restore the building to its original condition, but it would be limited in use to uses that did not require conditioned space.

Scenario 1 Construction Cost Estimate

Demolition	$20,000
Repairs (4,789.5 SF x $150/SF)	$718,425
Total	$738,425

Scenario 2 – Repair Original Barreling Plant & Loading Dock, and Renovate Additions
This scenario would repair the entire 6,827.5 SF existing structure. The 3,259 barreling plant and loading dock would remain unconditioned and would be restored to their original condition. Since the north and west additions are mostly insulated and finished, these two spaces would be renovated to meet current energy code and would be for uses that require conditioned spaces. The barreling plant would be limited to uses that did not require a conditioned space.

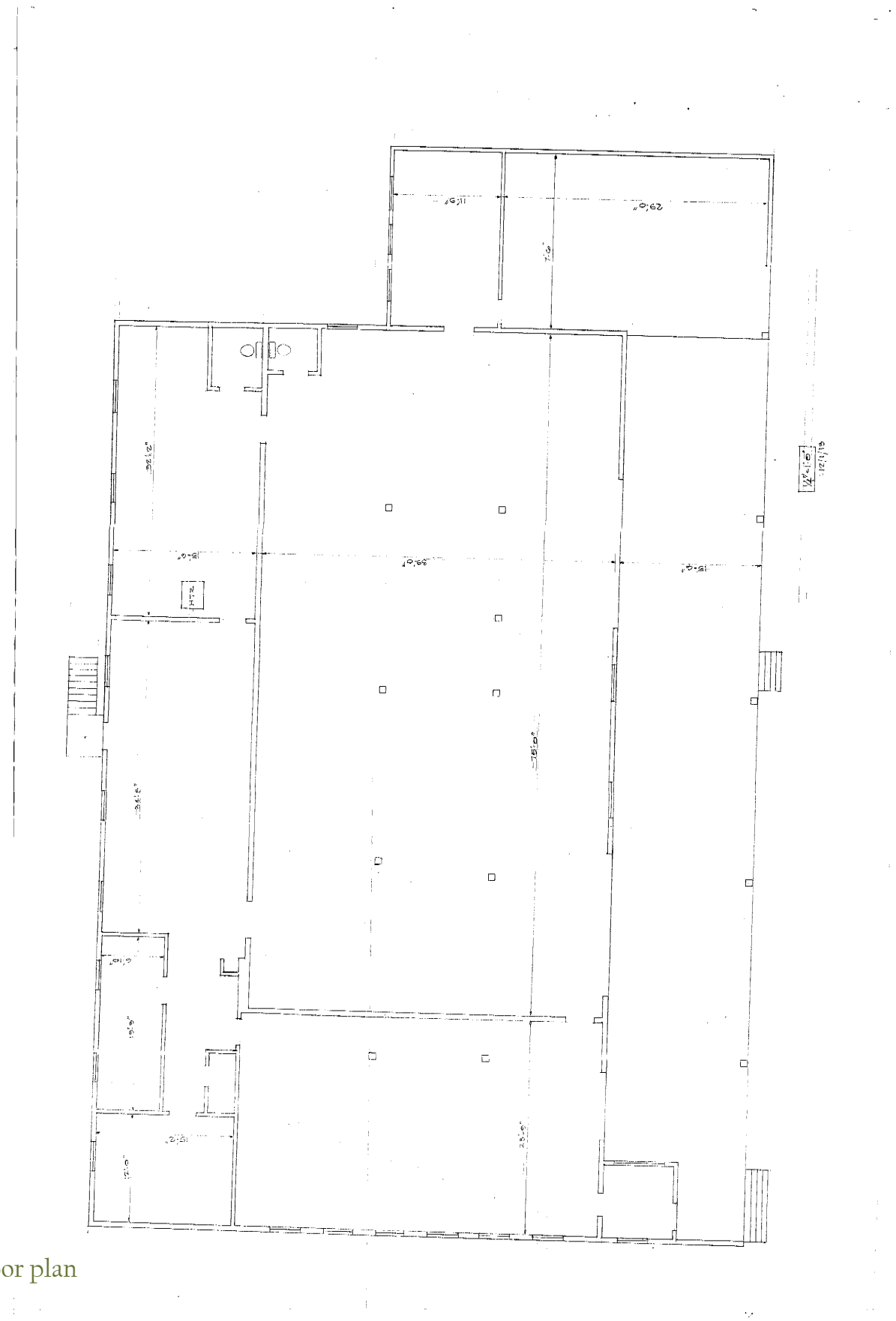
Scenario 2 Construction Cost Estimate	
Repairs (4,789.5 SF x $150/SF)	$718,425
Renovation (2,038 SF x $250/SF)	$509,500
Total	$1,227,925

Scenario 3 – Renovate Original Barreling Plant, Loading Dock & Additions
This scenario would renovate the entire 6,827.5 SF structure to meet energy code. The spaces would be suitable for all uses, however, much of their historic and agricultural character would be hidden behind gypsum wall board.

Scenario 3 Construction Cost Estimate	
Renovation (6827.5 SF x $250/SF)	$1,706,875
Total	$1,706,875

The original barreling plant and loading dock together are beautiful structures. It would be wonderful to restore the building to its original condition so that visitors can experience the spaces, see the wood structure, and appreciate its historic qualities. The north and west additions would be great support spaces that can be more fully renovated into modern spaces without affecting the barreling plant and loading dock. If the repairs and renovations create a useful structure, then there is a greater chance that the building will be preserved and to continue to tell its story.

Jim Cary, AIA
Principal, Cardinal Architecture



Floor plan

West elevation of the Mukai House. Courtesy Artifacts Consulting, Inc.

F. Site Technical Guidance

This appendix provides technical guidance for the:

- Site (including circulation features)
- Agricultural fields
- Agricultural shed
- Woods

Refer to Appendix D for landscape resources related to residential use (kitchen garden, Japanese garden).

This supports ongoing stewardship and decision-making. None of these are specifically listed as contributing to the historic (National and King County) listing status of the property. Collectively however they all contribute to the setting and context for the house, Japanese Garden, barreling plant, and office, and while not eligible for listing, their management as supporting resources is essential to the overall educational and interpretive role of the property.

Refer to the Historical Context for additional background on the period of significance.

Degree of Extant Character-defining Spaces and Features

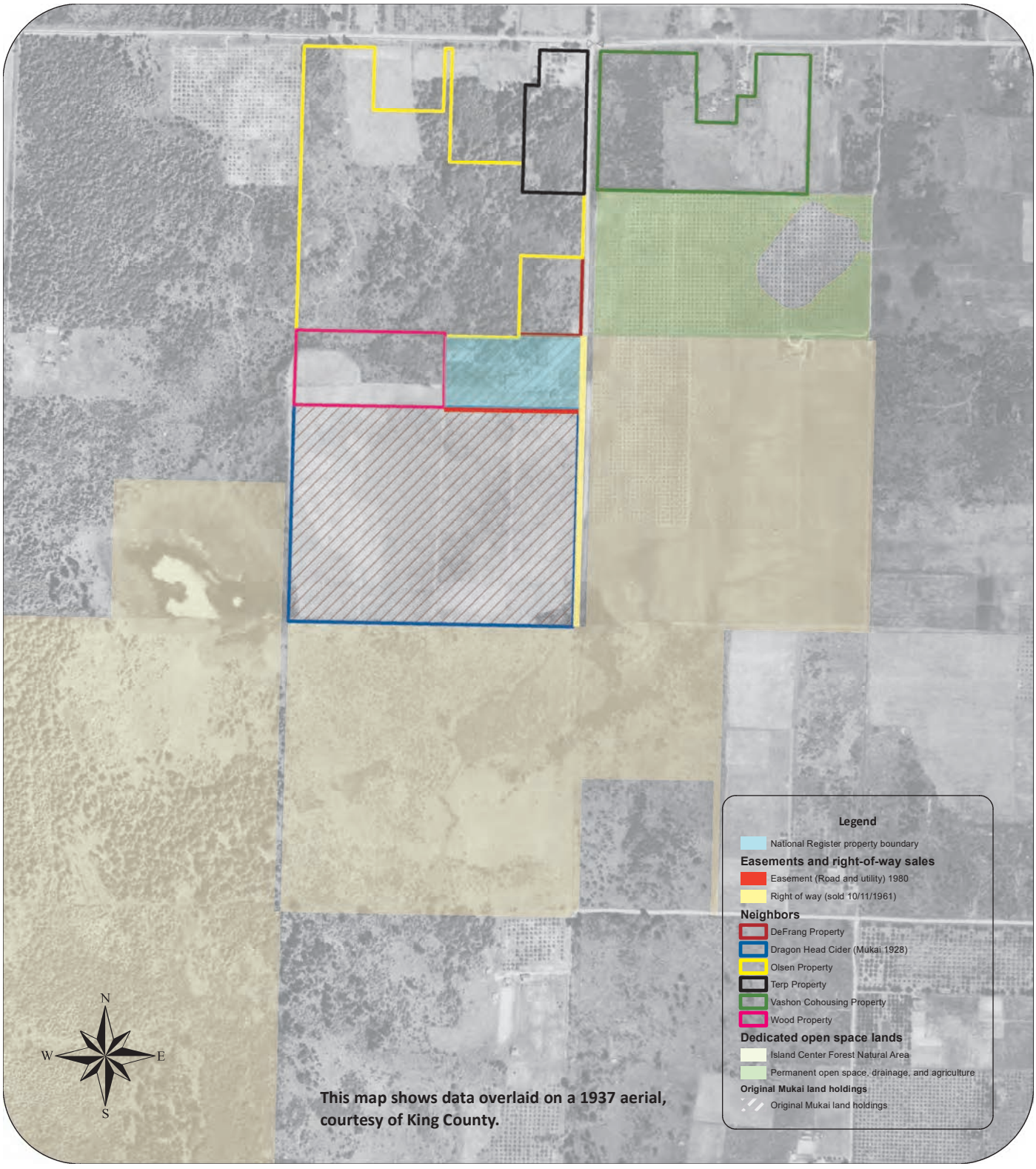
All of these resources exhibit significant alterations with few remaining character-defining spaces and features.

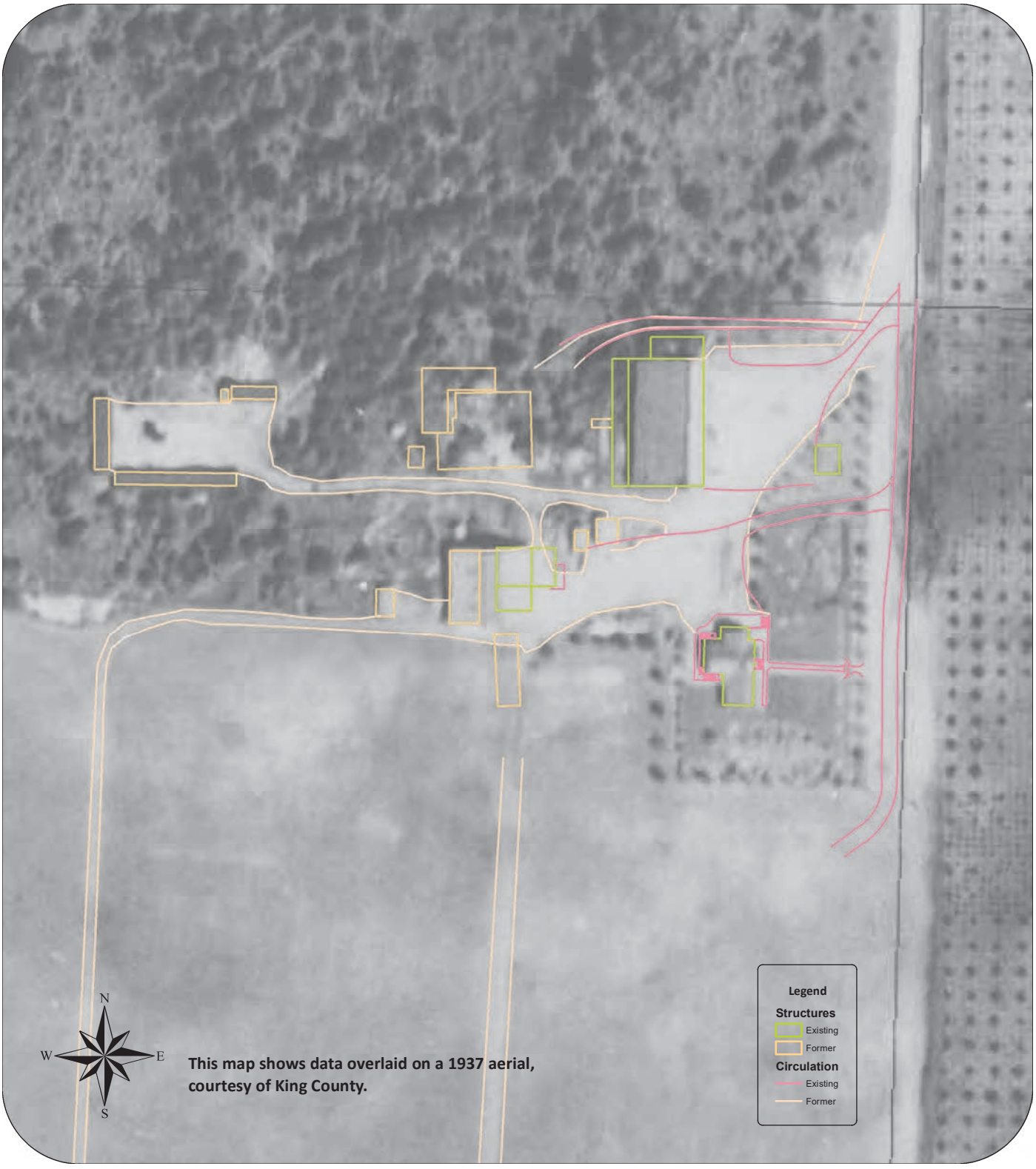
Condition Assessment Findings

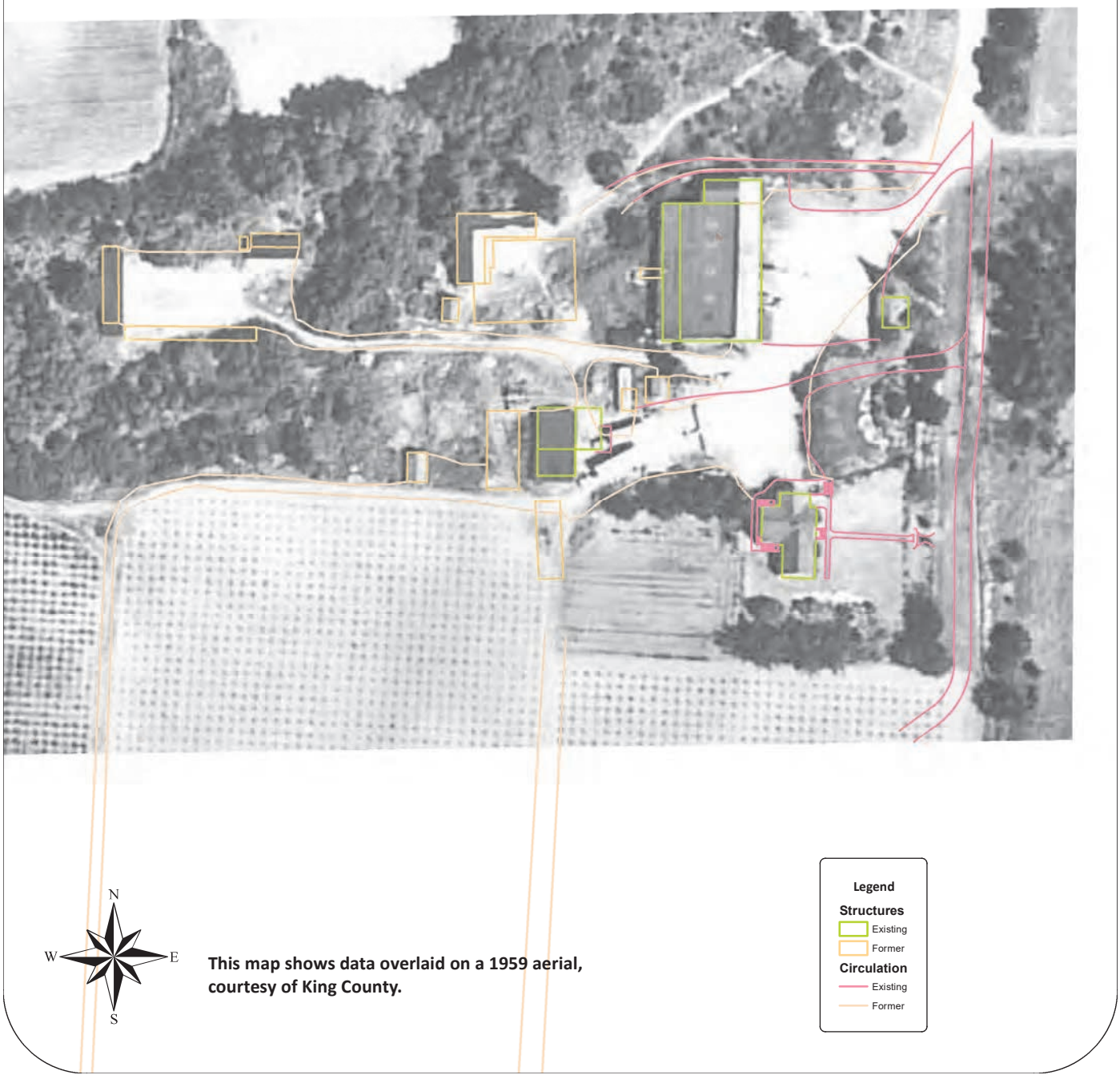
The conditions of these resources ranges from failed with the Agricultural Shed to fair for the site.

The following list some of the key condition issues for the resources. Refer to Treatment Recommendations for a more detailed listing of condition issues and stems to correct them.

- Site: exhibits deferred maintenance and drainage issues. Compacted gravel parking continues to function along the barreling plant. There were no immediately critical issues identified.
- Agricultural fields: have not been actively cultivated. Contemporary work excavated a series of channels in the field. There are some invasive plants identified by King County as growing in the field. There were no immediately critical issues identified.
- Agricultural shed: the structural system for the building has failed. A previously added steel beam on the interior supports the building.
- Woods: have not been actively managed. The major issue is the accumulation of refuse (cars, metal tanks, plastic pots) dumped in the woods that need to be removed.


Legend
National Register property boundary
Easements and right-of-way sales
Easement (Road and utility) 1980
Right of way (sold 10/11/1961)
Neighbors
DeFrang Property
Dragon Head Cider (Mukai 1928)
Olsen Property
Terp Property
Vashon Cohousing Property
Wood Property
Dedicated open space lands
Island Center Forest Natural Area
Permanent open space, drainage, and agriculture
Original Mukai land holdings
Original Mukai land holdings
N
W
E
S
This map shows data overlaid on a 1937 aerial, courtesy of King County.


N
W
E
S
This map shows data overlaid on a 1937 aerial, courtesy of King County.
Legend
Structures
Existing
Former
Circulation
Existing
Former



This map shows data overlaid on a 1959 aerial, courtesy of King County.

Analysis

Historical and architectural significance and levels of original public visibility are the primary factors in evaluating each resource's physical features and spaces to determine the level of historic integrity and relative priority of features and spaces. This supports their continued management in support of the overall property educational and interpretive function. Each resource can be divided into areas of relative character-defining importance. The historic significance of these areas stems from the history of construction, past occupants and events, and quality and integrity of architectural details. This analysis takes into consideration National Register Bulletin *How to Apply the National Register Criteria for Evaluation.*

Significance Levels

Resource features and spaces are designated as Primary, Secondary, Minimal, or None, based on the level of contribution each makes to define the resource's architectural character and historical significance. The basis for categorization stems from: the importance of the feature or space for the family and former agricultural functions; whether the feature or space is original, or is a historically significant or contemporary addition; the extent of modifications and additions to the feature or space; and the compatibility of finishes and materials employed in the historic and contemporary changes to the feature or space.

The intent is not to fragment each resource into divisible parts that can individually be preserved, modified, or discarded in future planning; rather, it is to view each as part of a larger group of supporting resources, each with character-defining features and spaces. The goal is to steer toward solutions that will permit continued improvements to areas with minimal or no significance, and to prevent eroding or adversely impacting those character-defining features and spaces with educational or interpretive value.

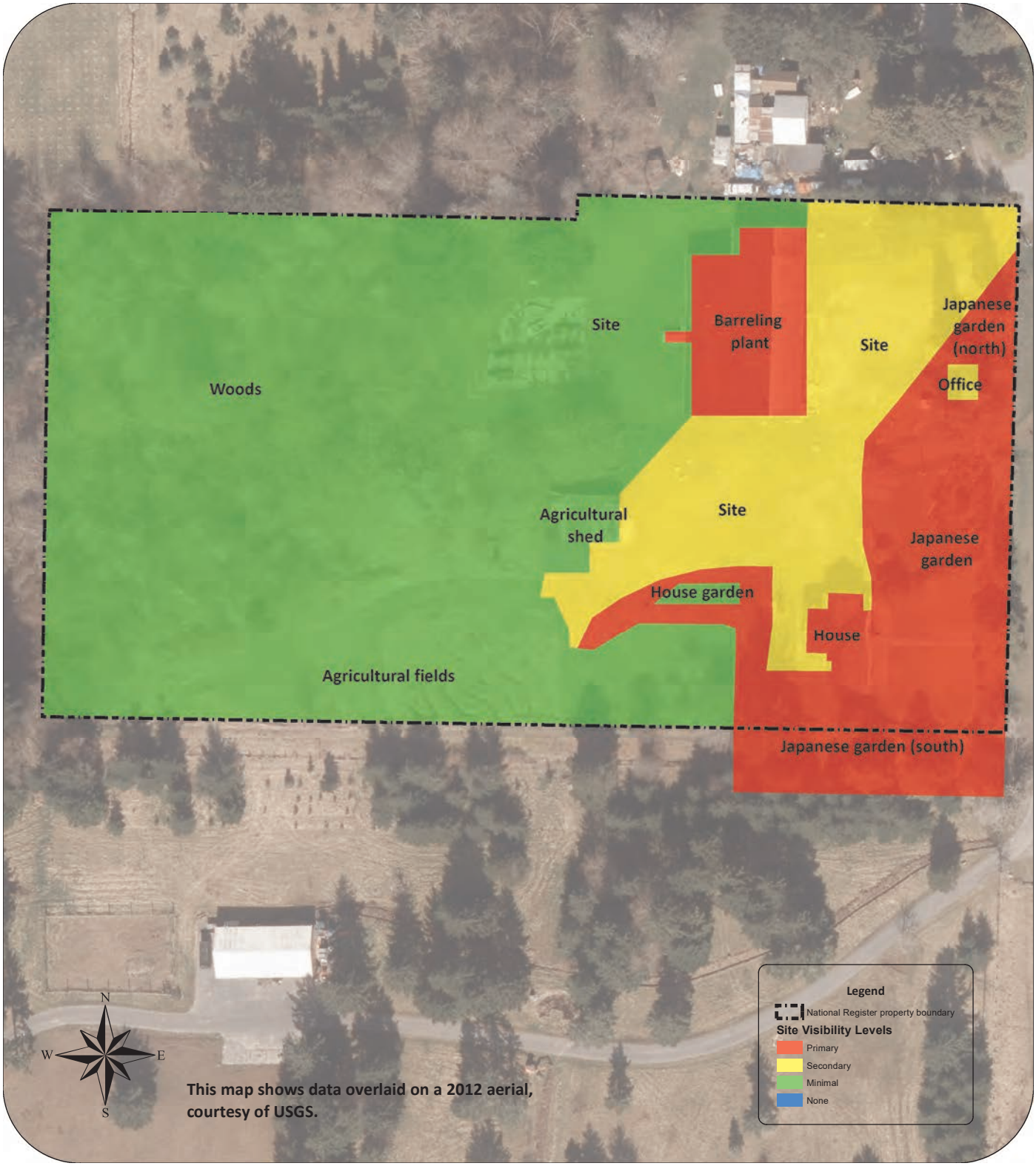
This section is intended for use in conjunction with the Decision-making Matrix. Significance levels assigned through this analysis are plotted on maps within this appendix.

Primary: Features and spaces original to the resource that display a high level of physical integrity, although possibly with minor changes or historically significant alterations created to fit into the design or character of the original feature or space. At an architectural significance level, the finishes, design, and materials are of a high quality and assemblies well made. They convey a consciousness of setting, often semi-public use. They reflect prevailing design and use influences during the resource's period of construction. At a historical significance level, they may also be noted for important historic events supporting the resource's educational and interpretive role. Their removal or extensive alteration would detract from the overall architectural and historical significance of the resource.

Secondary: Features and spaces are original to resource, though likely to have experienced changes and/or historically significant additions. They retain some historic character and significant features. They exhibit utilitarian, well-crafted but not lavish, building materials or architectural features. They often served supporting roles to historic functions within the broader context of family and farming activities.

Minimal: Features and spaces have few distinguishing architectural characteristics. At a historical significance level, they often served supporting roles to historic functions within the broader context of family and farming activities. Alternatively, an extensive, non-compatible contemporary remodel might obliterate nearly all significant architectural features and spatial configurations through introduced contemporary features and spaces.

None: Features and spaces have no remaining architectural features or spatial configurations dating to either original construction or significant historical modifications, or are contemporary features and spaces that are not compatible with the overall historic character of the property. Due to the absence of original materials, configurations or architectural design elements, these spaces do not have historical associations.


Site
Barreling plant
Site
Japanese garden (north)
Office
Woods
Agricultural shed
Site
Japanese garden
House garden
House
Agricultural fields
Japanese garden (south)
N
W
E
S
This map shows data overlaid on a 2012 aerial, courtesy of USGS.
Legend
National Register property boundary
Site Visibility Levels
Primary
Secondary
Minimal
None

Public Visibility Levels

Public visibility complements the architectural and historical significance category by identifying which spaces and features were originally accessible to or visible by the public. Accessibility in this sense does not pertain to either the American Disabilities Act (ADA) or International Building Code (IBC) access; rather, it speaks to the user groups originally intended for these features and spaces. Distinguishing between levels of accessibility identifies which features and spaces should receive increased attention to their preservation and interpretation due to their original public nature, or conversely, for their dedicated support role to the family. There are four categories of public visibility applicable to the building: public, semi-public, semi-private, and private. Public and semi-public spaces typically feature a higher level of functional association with the historic uses they supported.

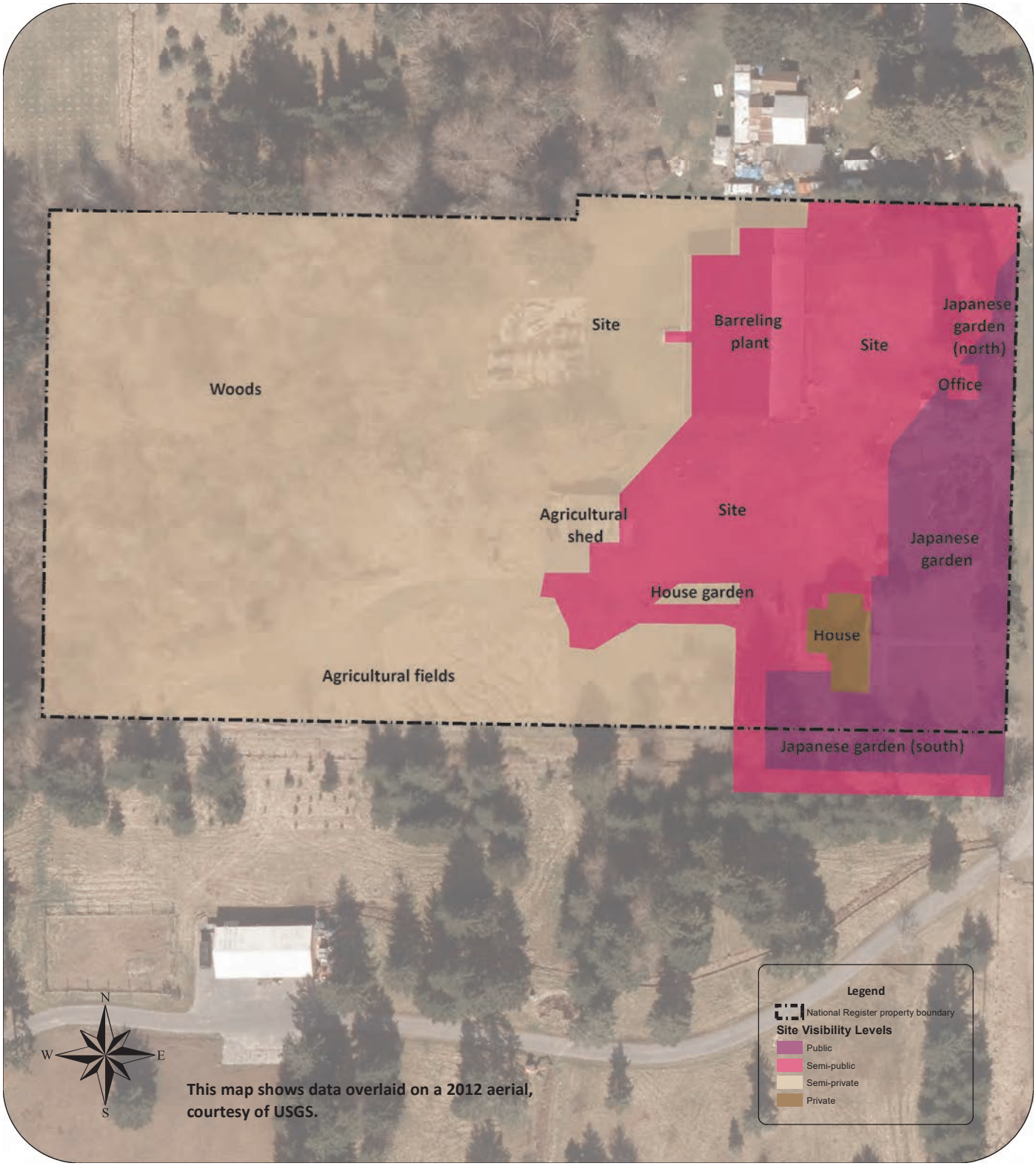
To assist in decision-making, the following public accessibility maps show these original levels of public accessibility layered over the property.

Public Areas: Features and spaces, to which any visitor or worker originally might view or enter with minimal to no restrictions placed on ability to approach, move through, or occupy. Consequently, the role as a public space was integral to the design process as reflected in the functions and design.

Semi-public Areas: Features and spaces that were accessible to the public only as invited guests of the family, or were agricultural work areas, or originally not in prominent view from exterior public right-of-ways, or served as the connection between public and private spaces within the building.

Semi-private Areas: Features and spaces that were available for family members and close family guests, but not the public, or were staff and support spaces for agricultural workers. They are not in prominent view from exterior public right-of-ways.

Private Areas: Originally for family members only, or living quarters for workers.


Site
Barreling plant
Site
Japanese garden (north)
Office
Woods
Agricultural shed
Site
Japanese garden
House garden
House
Agricultural fields
Japanese garden (south)
N
W
E
S
This map shows data overlaid on a 2012 aerial, courtesy of USGS.
Legend
National Register property boundary
Site Visibility Levels
Public
Semi-public
Semi-private
Private

Character Defining Catalog

The purpose of the following catalog of character-defining exterior features is to facilitate compliance with the goal of the Secretary of the Interior's Standards for the Treatment of Historic Properties, which is to preserve the resource's distinguishing visual and physical character.

The approach employed by Artifacts Consulting, Inc., in developing this catalog follows guidelines established in the National Park Service Preservation Brief 17, "Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character." This catalog facilitates quick reference during projects to identify which features remain intact and are important to maintaining the character of the resource, and which have been altered and as such are more adaptable.

All information is based on fieldwork conducted between July and November of 2016 and available archival records.

Agricultural Fields

The earliest aerial image for the site was taken in 1937. To date no maps have been identified to illustrate in detail any earlier configurations. The 1937 image shows a gravel road passing east/west just south of the existing agricultural shed. The upper north end of the agricultural fields abutted the south edge of this gravel road. The east edge the fields started approximately 40 feet off the west facade of the house. The former row of cherry trees ran between the field and house. Fields extended west through the lower portion of the adjacent parcel and south encompassing the full parcel to the south of the house. A cluster of agricultural buildings stood off the northeast corner of the field.

Character defining features

- Remaining open space.
- Visual relationships with the house, barreling plant, and the agricultural shed site.

Alterations

- By 1968 the gravel road no longer existed along the north edge of the field and tree growth from the woods started encroaching on the north edge of the field.
- By 1977 most the fields in the south and west parcels had been partially reclaimed by tree growth. The section immediately west of the house remained open. This tree growth continued through the 1990s.
- Fruit tree additions between 1977 and 2002, in the east end of the field immediately west of the house, these include the brown turkey fig (ID 2521), Japanese plums (ID 2522, 2520), Italian prune (ID 2518), Shinseki Asian pear (ID 2517), Gravenstein apple (ID 2519).
- Between 1991 and 2002, the east/west access road to the west parcel was added, running through the south portion of the Japanese Garden and the cherry trees.
- Topography changes adding the small ditches (between 1992 and 2001) within the central portion of the field just west of the house, and the increased site slope down to the northwest into the woods.
- Agricultural shed added within the field between 1981 and 1991 and removed by 2002.

Agricultural Shed

The earliest aerial image for the site was taken in 1937. To date no maps have been identified to illustrate in detail any earlier configurations. The 1937 image shows multiple agricultural buildings on the property. Most of these were removed between 1960 and 1967. These buildings provided support functions for the farm and barreling plant processing operations.

Character defining features

- Agricultural shed southwest of the barreling plant, built between 1928 and 1937. The north and south portions were built at separate times, but both existed by 1937. The north portion's west half has collapsed as of 2016 and the east portion has generally failed structurally.

Alterations

- Canopy and concrete pad addition to the agricultural shed southwest of the barreling plant between 1977 and 1980.
- Removal of most agricultural outbuildings between 1960 and 1967.
- Agricultural buildings west of the barreling plant (built between 1928 and 1936), at the far west edge of the property, the southernmost of the three removed between 1938 and 1958, the other two were removed between 1960 and 1967. Trees then quickly repopulated the former site.
- L-shaped agricultural building immediately west of the barreling plant, removed between 1960 and 1967.
- Agricultural buildings southwest of the barreling plant (built between 1928 and 1936), western most removed between 1938 and 1958. The other two smaller buildings directly south of the barreling plant removed by 1967.

Site

Originally a gravel driveway extending south from Southwest 176th Avenue entered the property's northeast corner opening directly into the loading and parking area in front of the barreling plant. This driveway served primarily the Mukai property. The house at the southwest corner of Southwest 176th Avenue and what would become 107th Avenue Southwest shared use of the first approximately 130 feet of the driveway to provide access to their property. The gravel road ended at the entry to the Mukai property, with a less developed segment continuing south past the Japanese garden to connect with the northeast corner of the field. Based on development and wear patterns visible in historic aerials, this extended segment was not highly used, with family and visitors to the house approaching from the north and entering at one of the north entrances.

Organization of the site grouped key functions along the east end of the parcels with supporting functions placed to the rear (west). The barreling plant marked the point of arrival to the property on the north side with parking and loading to its east and supporting agricultural out buildings located to the west, behind and partially southwest of the barreling plant. A large central gravel parking and pull through area for trucks extended south from in front of the barreling plant to connect to the house and then extended west to provide access to the fields and associated agricultural buildings. The house was located to the south, set back from the industrial operations at the barreling plant and the point of arrival to the property. The north side of the house overlooked directly the operations at the barreling plant, with the gravel area extending up to the north edge of the house. The Japanese garden and a grass lawn wrapped the southwest, south, and east sides and continued north to the point of entry to the property.

Character defining features

- Concrete walkways along the front and rear of the house, constructed as part of the house and Japanese Garden development, and consisting of a two-part composition with a coarse inner aggregate core and a fine aggregate topping for the finished character. Stained and scored (grid pattern) concrete landings at the base of the north porch stairs.
- The front concrete walkways served an integral role with the lawn in providing the classic American front yard that contrasted with the surrounding Japanese Garden. The south end of the walkway ended at the edge of the former South Japanese Garden. The east walkway transitions to stone slab steps as the circulation path passes through the Japanese Garden to 107th Avenue Southwest. Historically 107th Avenue Southwest was not sufficiently developed for this route to be the main public entry to the house; instead family and guests arrived via the north side of the house.
- Concrete stairways at each entrance to the house; refer to the House Technical Guidance appendix for additional details.
- Northeast site entrance off 107th Avenue Southwest, entering diagonally to the parking and loading area in front of (east of) the barreling plant. This originally served as the single entry to the site and marked the end of the developed driveway extending off Southwest 176th Avenue.
- Gravel parking area east of the barreling plant, its extension south to the house's north facade, and its extension west to the agricultural shed. In addition to family use, these were the key travel paths for agricultural equipment and delivery trucks servicing the barreling plant.
- Cherry tree outline along the south side of the parking area, west of the house, south of the house, east of the house up to the site point of entry, and then diagonally along the southeast side of the gravel area in front of the barreling plant, and continuing south to the northeast corner of the house. This existed by 1937 and remained through 1959.
- Former access road running along the south side of the barreling plant west to the far west end of the parcel and a gravel parking area surrounded by agricultural support buildings. This existed by 1937 and remained through 1959.
- Former access road along the north edge of the field that ran west past the south edge of the agricultural shed and marked the transition between field and wooded area. This existed by 1937 and remained through 1959.

Alterations

- 1961, the county road 107th Avenue Southwest

established at a 60-foot width, with 30 feet to either side of the center line. The new road started at the centerline of Southwest 176th Street and ran south a half mile. This required purchase of 30 feet of property in 1961 from both of the property parcels.

- Loss of cherry trees to the southwest and east of the house by 1959. Removal of all west trees followed.
- Between 1980 and 1991 the portion of 107th Avenue Southwest south of the entry point to the property was improved as a roadway servicing the parcel to the south.
- Concrete slab added between 1977 and 1991, west of the barreling plant as part of the Island Springs tofu production operating on site.
- Gravel access road added along north side of barreling plant between 1960 and 1968, during the 1960s the road arched up into the adjacent north parcel, and by 2002 it was a more direct route along the barreling plant's north side within the barreling plant parcel. The road provided access to the area behind the barreling plant.
- Lawn and tree encroachment along the north side of the parking area in front of the barreling plant. This started in the 1950s.
- Between 1969 and 1976 the parking areas were split into two sections, the north part serving the barreling plant, and the south part serving the house. Traffic ceased to move between the two and a separate driveway access was provided for the house through the Japanese garden. This corresponds with the property no longer being owned by the Mukai family.
- Access road installed between 1992 and 2001 along the south edge of the property, through the Japanese garden to access a parcel west of the property.
- Access road to the agricultural buildings west of the barreling plant, at the far west edge of the property, removed between 1960 and 1967.
- Chain link fence added around the north end of the property; separating the barreling plant and office from the rest of the property and 107th Avenue Southwest.

Woods

The wooded area along the north central and north west portions of the property remained in 1937 and was part of a larger belt of wooded areas through the central portion of the island. Comparing the scale and density of the trees existing in 1937 with the growth of trees in the south parcel once it ceased to be cultivated suggests they followed a previous clearing of the area 30 to 50 years previously. Fields had been cleared of trees in the various parcels under cultivation. A small area (134 by 56 feet) was cleared out within the wooded area to provide space for several agriculture related buildings and a central parking/turn around area. Current drainage within the area flows to the southwest. This towards what 1900 and 1930 USGS topographic maps show as a wetland area to the southwest that subsequently developed into a pond and is commonly referred to as Mukai Pond.

Character defining features

- Mixed tree canopy consisting primarily of deciduous trees.

Alterations

- Multiple ornamental deciduous trees planted within the last 20 to 30 years were observed during a site walk through along the south side of the wooded area.
- Debris deposited in the wooded area including but not limited to oil tanks, old cars, and plastic potting containers.
- Tree growth covering the former access road and cleared area at the former agricultural buildings.

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Flowering tree near Mukai House

G. Treatment Recommendations

The following treatment recommendations cover a wide variety of work supporting the ongoing stewardship of the property's resources (site, buildings, gardens, etc.). This work ranges in difficulty and expense. Establishing this organized approach is necessary to facilitate fundraising and ensure that work proceeds in a logical sequence of mutually supportive tasks rather than compounding future projects through repetition or reversing previous work. Tasks can be undertaken on an individual basis as funding permits or folded into a larger set of projects. It is also necessary to match specific tasks with the available skills of volunteers and contractors.

Resource	Treatment	Period of Significance
Agricultural fields	Rehabilitate	1927-1946
Agricultural shed	Salvage	Not applicable
Barreling plant	Rehabilitate	1927-1946
House	Restore	1928
House garden	Rehabilitate	1927-1950
Japanese garden	Restore	1927-1934
Office	Rehabilitate	1946
Site	Rehabilitate	1927-1946
Woods	Rehabilitate	Not applicable

The overall treatment recommendation for the property is rehabilitation. The following provide resource specific treatment approaches that guided development of the treatment recommendations. These resource specific approaches were developed based on the significance and integrity level of the resource and how that related to its interpretive and educational role.

Organization of the recommendations prioritizes projects on a short-, mid-, and long-term basis.

- **Short-term projects (2016-2017)** are those that need to be done within the next one to two years in order to protect the safety and authenticity of the resources and to establish baseline planning for larger scale mid-term projects.
- **Mid-term projects (2018-2019)** are those that generally should be done within the next two to three years to accomplish larger scale rehabilitation and restoration work associated with activation of the site. These are not immediately critical to the life safety and function of the resources. They

also require planning and fund-raising to accomplish.

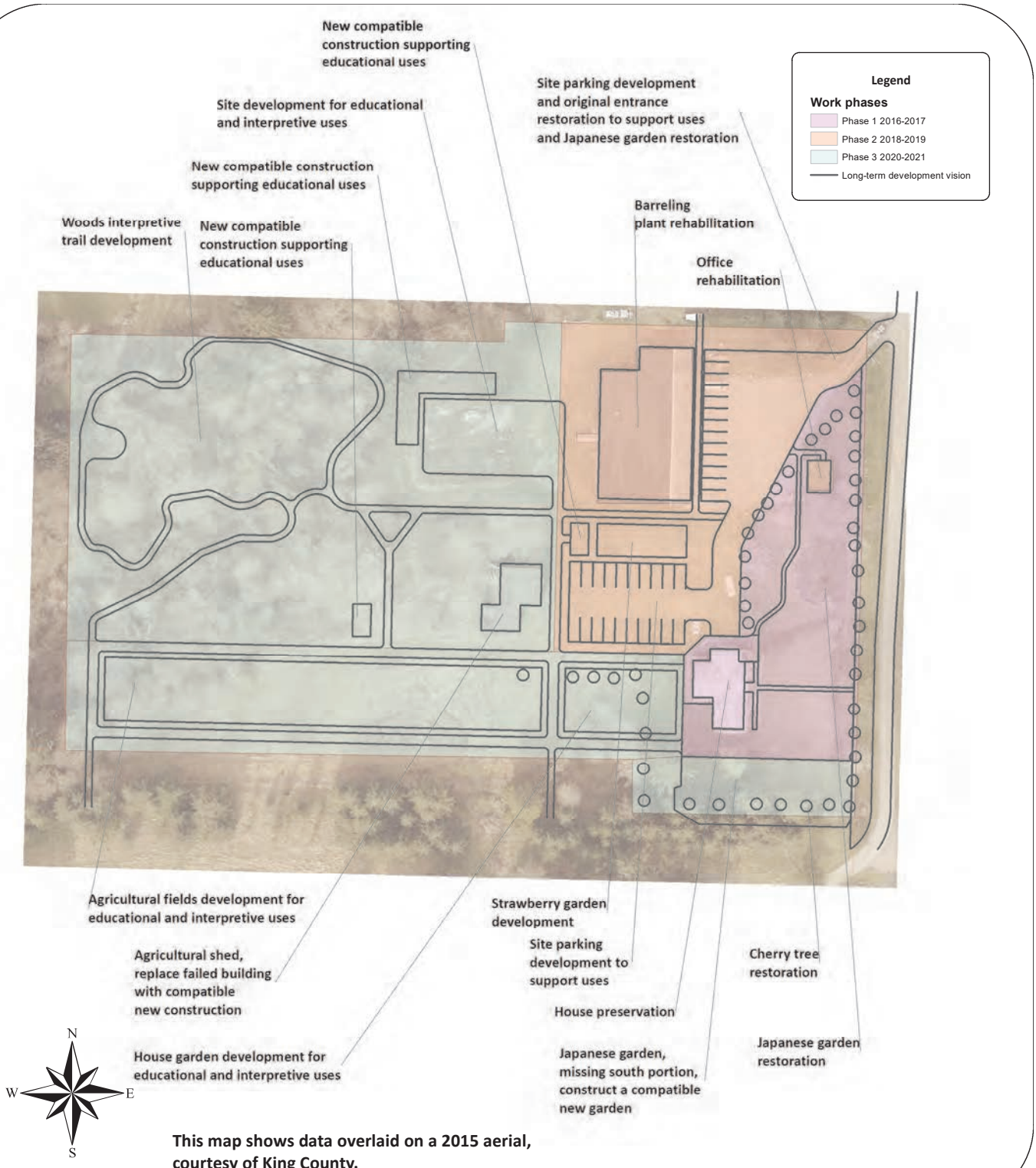
- **Long-term projects (2020-2021)** are those that should be implemented within the four to five as substantial capital improvements, restoration and reconstruction projects. They may be delayed that long to allow for thorough planning and fundraising.

Conceptualization of projects within the short-, mid-, and long-term time frames organizes the tasks under the categories of Planning, Minor and Major building projects. These groupings are based on the skill types and resources necessary to implement the tasks.

- The first category in the process of working with the building is **Planning**. This involves identifying available resources, developing schedules, writing grant applications, cultivating donations and legislative support, assigning tasks, and implementing necessary studies.
- To facilitate this process, projects that could be undertaken by skilled local volunteers, staff or small contractors under direction of the FOM and that require minimal resources and funding are in the category of **Minor** building projects.
- Those projects requiring specialized services, substantial funding and the intense time and resource commitment of a contractor are in the category of **Major** building projects.

The importance of taking the necessary time to review the full scope of work involved in the short-, mid-, and long-term recommendations to gain familiarity with the broad pattern of possible work cannot be overstated.

The following treatment recommendations stem from site visits and discussions with FOM board members in the summer and fall of 2016. No destructive investigation was conducted.



This map shows data overlaid on a 2015 aerial, courtesy of King County.

Phase 1 2016-2017

The goals of this phase are to complete the following. The scale of work in this phase can be accomplished under direction of the Friends of Mukai and would not need a general contractor.

- Acquisition of the barreling plant and office property.
- Planning and documentation informing fund raising and work in subsequent phases.
- Stabilization and repair work on the property.

Agricultural Fields

For this phase no action beyond routine maintenance is anticipated for the fields. Work in subsequent phases will develop around activation of the overall site and use of the fields.

Planning

- No work.

Minor

- Mowing: as an ongoing effort to keep vegetative growth in control, reduce invasive species, area currently flagged by King County for invasive species, and to reduce fire hazard. Three times per year, spring, summer and fall.

Major

- No work.

Agricultural Shed

For this phase the goal for the shed is to prepare the site for development in subsequent phases. The shed has partially collapsed and is beyond the point where it could be reasonably stabilized and repaired for continued use. There are materials that have re-use value within the site that should be salvaged.

Planning

- Vehicle removal: identify receiving entities for the vehicles stored in the shed. If there are historical groups interested in restoring the buses, that would be ideal; but if not then the buses should be sold for salvage value to remove them from the site.
  - » Rambler, not related to historical development of the site, acquired by the previous owner, sell the vehicle and utilize the proceeds to benefit the site.

Minor

- Mowing: continue mowing around the shed to keep the blackberries off the building. This should be coordinated with mowing of the field.

Major

- Vehicle removal: remove the vehicles from the site. Refer to planning above for details.
- Electrical service disconnect: remove electrical circuit providing power to the shed. There is an underground line extending from the power pole diagonally to the shed. This line should be disconnected by a licensed electrician from the power pole and abandoned. The condition of the line is unknown. Site drainage work related to the house will likely extend through this area. Any new construction would involve a new code-compliant power feed.
- Materials salvage: disassemble and salvage materials from the shed. The following are priority items for retention. Remove pieces. Remove nails from siding. Remove all debris from site for recycling or land fill. Stack salvage material on the concrete slab with spacers between materials and concrete. Cover with

tarps and secure for in place storage.

  - » Door (personnel and sliding)
  - » Windows
  - » Siding

Barreling Plant

For this phase, once the sale is finalized in 2017, the goal is to develop the planning background, identify and remediate any hazards that could jeopardize the building's retention, secure a tenant(s) for the building, and to sustain the building until funding can be raised to implement development plans and activation of the building in subsequent phases.

The barreling plant will have to go through an official change of use as part of the project design in phase 2.

Planning

- As built drawings: record the existing structure and provide backgrounds for structural assessment and repair. These will be the baseline documents guiding the rehabilitation and re-use of the building.
- Structural assessment: review existing conditions and propose a structural repair plan. This report will provide the understanding of the building's structural system and current issues to guide stabilization and rehabilitation. Proposed public and commercial uses include assemblies (less than 400 people), meetings, events, school visits, museum exhibits, and commercial retail and production spaces.
- Hazardous materials survey: to determine if there are any existing conditions or materials that should be abated. Include the area around the building and where the potential strawberry garden would go to determine if there are any residual materials related to past agricultural activities.
- Electrical inspection: by a licensed electrician to determine if there are existing conditions that are dangerous and should be addressed immediately.
  - » Can king county contribute the time of an electrical codes inspector to do this inspection?
- Tenant identification: for the building to determine the scope and level of building repair and construction necessary to meet current building and energy codes. This will drive the scope of the shell and core and tenant improvement work in the next phase.
- Heating system inspection: to enable continued low level use to maintain 55-degree temperature in the building; oil tank inspection. Have same hearing contractor as house do the inspection. What is current volume of oil in tank and when will need to refill. If the heating system is not used, then regular monitoring site visits should be made to confirm moisture build up in the building is not detrimental.
- King County building official and Historical architect site visit to review draft report, building conditions, and stabilization needs.
- Paint analysis: collect paint samples to identify original exterior paint color to guide future repainting efforts. Work anticipated to be completed in December of 2016.
- Technical guidance completion for the Preservation Plan. This would include developing the catalog of character-defining features, conditions, significance analysis, and treatment recommendations relative to historic materials. This would be done as part of a rehabilitation project and would require completed as-built drawings.

Minor

- Security: secure the building, securing doors, closing off west stairway so that it is not used, wiring of motion sensitive light.
- Roof patch: hole in rear slope to stop water entry. Intended as temporary measure. Have roofing contractor conduct site visit to provide scope and cost estimate. Confirm that all gutters connect to the drain system and are clean and free of debris.
- Heating: maintain heating in the building at 55-degres. This should include a monthly check-in by FOM to confirm the heater is working and there are no issues.

Major

- No work

House

For this phase the goal is completing the planning background, completing smaller repairs, and beginning to implement upgrades related to public use of the building related to the overall site activation in order to expand public use of the building.

Planning

- Septic system inspection: to determine the location, condition, and capacity of the current system. This work is anticipated for partial completion in December of 2016. The location of the sewage outlet and septic tank confirmed; however the condition and capacity have not yet been assessed.
- Official change of use: retain an architect to work with King County building officials to officially change the use of the house from single family residential to office and assembly. The insurance coverage for the house will likely require this and the change affects your liability exposure. The process necessitates hiring an architect to work through with King County code officials on behalf of FOM to change the use and determine what alterations the code official would require in order to meet life safety requirements for having the public in the building. This could include hard wired fire alarms (no sprinklers, too small), structural repairs (which have been mostly identified and would be covered as part of the seismic assessment), and possibly parking or exiting changes. This process will result in a list of changes from the building official that will need to be made.
- Structural assessment: to determine the best approach for seismic upgrades to the building based on the proposed public use of the building. Identify any upgrade needs to the floor structure based on proposed public use of the building and to review the north porch structural conditions to determine if any upgrades are needed as part of repairing the porch. Proposed public uses include assemblies, meetings and events, lectures, exhibit display, school visits, and event space for small functions. Address the following questions as part of the report:
  - » Foundation cracks on the south, east and west facades and if any measures beyond sealing are needed.
    - ◊ West facade, below northernmost windows, 1/8 to 3/16-inch wide.
    - ◊ West facade, hairline crack below window.
    - ◊ West facade, hairline crack below window, just south of west entrance.
    - ◊ West facade, 1/8-inch crack at south end of foundation.
    - ◊ Wall crack, 1/8-inch-wide, running vertically through the shingles and down across the header over under the north porch. This crack is off the west side of the porch. Are any corrective or stabilizing measures needed.
  - » Settlement of the northwest stairs. The upper through bolt connects into the house foundation. These bolts appear to be remaining from form work framing. Due to the settlement of the steps, should the tie that connects in to the house foundation be disconnected so there is not a continued outward draw against the foundation at this location?
  - » North garage wood framing below the porch, what improvements are needed? The center beam has slipped out of its pocket at the south end by 2 inches.
  - » North porch soffit, what improvements are needed to connect the two sets of ceiling joists within the attic to support the soffit bead board?
  - » Two historic steel water tanks in the attic, can these remain where they are, and if so, what measures would be necessary to stabilize them in the event of a seismic event?

- Site planning: to analyze the existing land use requirements, analyze the existing structures per the building code, discuss and review potential building and property uses, and analyze the overall site for desired uses. This work was essential to scope and guide building repair and construction necessary to meet current building and energy codes. This will drive the scope of the shell and core and tenant improvement work.
- Hazardous materials survey: conduct a hazardous materials survey to determine the extent of materials in the house. This work could be coordinated with work on the barreling plant and office for economy.
- Paint analysis: determine original color scheme for the building interior and exterior to guide future repainting work.
- Collections plan: develop a plan for the treatment of collections within the house. This can start as a simple document to outline the steps involved in evaluating and then accessioning or disposing of items currently stored in the house. This document provides consistency for decision-making as the stored items are processed.

Minor

- Fuel tank decommissioning: pump residual water/oil from the tank. This is the original oil tank, the current oil-fired boiler utilizes an above grade tank on the rear west side of the house. Fill the tank with a light-weight structural foam. Obtain permits and close-out through King County Fire Marshall. The tank is located below the historic sidewalk and is not in a location that is not expected to impeded any future construction. This work is anticipated for completion in November of 2016.
- Chimney pointing: repoint exterior brickwork matching the original tooling and mortar type. Interior remains in good condition. Any clean out of mortar joints prior to pointing must not damage or cut into the surrounding brick. Pointing should be coordinated with flashing work.
  - » Chimney flashing: provide metal step flashing at the chimney/roof transition. Tie upper ends of flashing back into mortar joints and lower ends under the asphalt shingles. Integrate with the ridgeline vent. Temporary work installed in 2016 protects the roof/chimney joint.
  - » Chimney cap: provide a metal cap on the chimney that is vented to allow continued use of the oil-fired boiler and eventually the fireplace. That cap should keep rain water and animals out of the chimney when the fireplace is not in use. Consult with contractor on design options.
- Chimney lining: consult with a contractor to determine the best approach to line the currently un-lined brick chimney to continue using the fireplace in the living room during special functions. Consider the chimney's performance during a seismic event as part of the design of the lining. This work could be done with the chimney repairs or at a later date depending on funding.
  - » Fire place repairs: in order use the fire place the missing tiles at the hearth must be replaced in kind. Repair in-kind the damaged sections of fire brick within the fire box. This should be done as part of the chimney lining process so the fireplace is not used before these repairs are completed. Leave the cracked and broken outer hearth tiles as these are original. Pull name of batch elder fire place contractor in Seattle
- Gutters: At the southwest and southeast building corners add extension tubes connected to the downspouts (approx. 5' length) at grade to push water out away from building. The current splash blocks are insufficient due to the grade slope back against the building. This is a temporary measure until site drainage can be corrected and the downspouts connected to the storm drainage system.
- Window stabilization: caulk (using polyurethane caulk, not silicone) a gap at the window on the east facade just north of the stairs, at the basement level. The loss of part of the mullion and associated glazing putty creates an opening between the glass and wood. This is a temporary measure until the windows can be repaired.
- Trim board repair: replace the missing board at the back face of the soffit return on the east

facade.

- Pest monitoring: have a bag of diatomaceous earth on hand for pest control. During the summer field work ants were observed working around the northwest corner of the house looking for access to the building. This activity has declined with the cooler weather, but will increase in spring. Diatomaceous earth is inexpensive and non-toxic and effective at deterring insect entry. This coupled with the weeding and cleanup of vegetation away from the base of the house will help to control pest entry.
- Collections inventory: this should implement the collection plan. The priority area should be the basement, to provide access for electrical, heating, and seismic work on the building.
- Siding repair: Remove Ethernet connection to exterior at southeast corner. Patch and repair opening.
- Northwest entrance, first floor.
  - » Clean and recoat tongue and groove flooring with a marine grade exterior oil.
  - » Replace wood threshold in-kind.
  - » Repaint bead board soffit and concave molding along edges.
  - » Replace current weather stripping at the door and repair the split in the door casing on the east side of the doorway.
  - » Remove loose paint, prime and paint metal railings to match existing color.
- West entrance, first floor.
  - » Repair loose joints in the door.
  - » Install weather stripping around opening.
  - » Repair or replace in-kind the center plywood lower panel, which is splitting due to paint loss and weather exposure.
  - » Replace in-kind missing wood stops at upper glass lites.
  - » Repaint door inside and out.
  - » Replace the worn threshold.
  - » Rewire the electrical socket above the doorway at the exterior, there are exposed wire connections and worn insulation.
- West entrance, basement.
  - » Install header flashing, the shingles hit at the header and do not shed water out over the doorway.
  - » Caulk the ½ inch gap between the trim and stucco on both sides of the doorway. The gap stems from settlement. Will need to use a backer rod at these locations.
  - » Provide a weather seal along the upper north end of the door or modify the door to fit the opening and rehang the door if settlement is no longer active.
  - » Replace the added concrete threshold with a new threshold providing a positive weather seal against the bottom edge of the door and preventing water flow in under the threshold.
  - » Clean out and confirm the floor drain functions. The new line for this drain runs east into the building interior, turns north and exits the building at the north basement doorway to connect with the drain system off the north end of the building.
  - » Remove plant growth that has spread to the interior around the door opening.
  - » Repair and repaint damaged casings.
  - » Repair and repaint the door. Paint failure and exposure of the wood to the elements has contributed to the joints opening.
  - » Replace in-kind the missing wood stops and glass panes, remove non-compatible glazing, and replace added non-compatible wood stops with stops matching the original stops.
- North entrance, basement
  - » Repair damaged jambs and trim, splicing in new sections as needed and repaint.
  - » Replace in-kind the failed wood threshold.
  - » Repair loose joints on door, the split on the top rail, and repaint.
  - » Install head flashing at the doorway.
  - » Provide a weather seal at the 2 inch tapered separation on the west side of the door. This separation is due to the settlement of the west stairs.
  - » Redo concrete approach as part of site

drainage upgrades so it drains away from the building rather than towards the doorway.

- East entrance
  - » Metal railings: pull and replace the corroded portion beneath the handrailing cap. Leave the rest set in concrete and then recoat. The anchors into the concrete are in good condition and would be better not to disturb.
  - » Concrete stairs: install cementitious patch at risers, using Cathedral Stone's Jahn M90 or equivalent concrete patching material. This is a mineral based repair mortar that remains vapor permeable and can be built up in multiple layers. The loss of material at the riser is undercutting the tread which will result in tread loss if it is not supported. Remove the minimal amount of material necessary to bond the new work with the existing concrete. http://www.cathedralstone.com/IMS/Product/?deptid=1010&mid=18289
  - » Staining: clean iron staining from the side of the concrete. Product Prosoco/Dietrick.
  - » Door: prep and repaint the door. Replace weather stripping around the door. The current weather stripping does not contact the door when the door is closed. Clean and reoil hardware to protect from the elements. Bottom edge of door rail is split with a section missing. This leaves a gap at the threshold. Take off the door and splice in a repair section at this location and reinstall door. Should do as part of painting of the door. Confirm: Replace iron screws with brass screws.
  - » Threshold and concrete landing: due to settlement of stairs out and away from the building there is a 1 inch gap between the threshold and the building. Provide a transition and flash or caulk this joint to direct water out and away from the building.
  - » Canopy: clean and repaint the canopy. Inspect and repair the canopy roof as needed to determine if previous water infiltration on the back side of the bead board soffit resulted in any damage to framing materials. Reinforce the metal rod connections to the canopy, existing are inadequate.
  - » Loss of riser surface material under cutting the tread.
  - » Metal railings set in concrete, failed along hand rail with extensive jacking on both sides, it is the inner core beneath the cap that has failed.
  - » Cracks with upper 6" of landing separating. Confirm: landing overlapping at foundation which is holding this as the lower portion settles. Settlement of concrete stairs out and away from the building leaving a 1" gap below the threshold.
  - » Iron staining along sides.
  - » Gaps between boards not caulked when painted; previous water leakage into back side of bead board soffit.
  - » Door: failed paint, cracking and deterioration of wood due to water entry.

Major

- Seismic retrofit: install mechanical connections (e.g. foundation ties), to allow the building to remain on its foundation during a seismic event. This work should follow the structural assessment and the report's direction on the best approach based on proposed public use. Work should be done to commercial building code standards, by a licensed and bonded contractor with experience working on historic buildings. This work will need to be coordinated with the removal and curation of artifacts and other items stored in the basement, as access will be needed to all the perimeter walls. Install straps at water heater.
- Seal foundation cracks: at the exterior to reduce water entry at these locations and further expansion. Utilize a cementitious grout or mortar sealant colored/sanded to blend with the concrete parging. Avoid overlapping sealant onto wall surface. The role of the sealant is to keep water out, consequently the sealant should not be as strong as the adjacent concrete. This work should be done by a mason with experience working on historic buildings.
- Electrical panel relocation: install a new commercial grade 200-amp electrical panel on the building's interior to replace the exterior

panel and reroute electrical service to and circuits from this panel. The existing exterior panel is not secure. This work should precede the electrical systems upgrade. Work should be done to commercial building code standards, by a licensed and bonded contractor with experience working on historic buildings.

- Electrical system upgrade: replace the multiple outdated electrical systems within the building, including knob and tube. Work should be done to commercial electrical code standards, by a licensed and bonded electrician with experience working on historic buildings. The work should not be delegated to apprentices without the experienced electrician on site. Lighting and switches on the first floor are fed via the attic. Electrical outlets on the first floor are fed via the open basement. Upgrade electrical circuit to water heater in basement.
  - » Replace all receptacles and switches with new commercial grade units, except for the following original switches and outlets. Determine if these can remain in use, and if not, remove wires and leave the switch in place but not connected.
    - ◊ Keep original switches in the hallway, determine if these can remain active and if a GFIC circuit breaker may be needed for them to remain.
    - ◊ Keep original outlet receptacles in the hallway (east wall) and kitchen (east wall), clean and reinstall. Provide compatible cover plates. Disconnect power to these outlets. They would be for interpretive purposes only.
- Determine code requirements for kitchen circuit and outlets based on continued use of the kitchen.
- Asbestos abatement: remove all asbestos within the building. Based on field work this appears to be primarily within the insulating wrappings at radiator lines. Scope should be defined by hazardous materials survey. Determine if the existing piping can be removed with the asbestos. This work should be done immediately prior to the heating system upgrade. If the pipes are left in place and the exteriors cleaned, and new insulation applied then there could be a longer delay before the heating system upgrade occurs.
- Heating system upgrade: replace the oil boiler with an electric micro-boiler and circulating pump system sized to operate the building's radiators. Provide new hot water supply and return connections to all radiators, replacing and removing all existing galvanized metal piping. The exception being the through wall piping at the basement garage wall mounted radiator. The piping supports the radiator. Coordinate with asbestos abatement. Remove the oil boiler and all associated elements within the basement, including the flue connection for venting and the line connecting to the exterior above grade oil tank. Interior piping from the oil tank at the east wall of the basement could be left for interpretive purposes, but would need to be cleaned of all heating oil. Patch the chimney base as needed to seal the former flue connection. Remove the exterior above grade oil tank and patch the openings in the exterior wall at the former oil line supply. Work should be done to commercial building code standards, by licensed and bonded contractors with experience working on historic buildings and historic radiator systems. This work should be coordinated with the radiator cleaning and asbestos abatement and ideally done in the summer when the heating system is not needed. The abatement contractor will be a separate contractor from the heating contractor.
- Radiator cleaning: inspect, repair, and refinish as needed all original radiators within the house to keep them in working order. Determine if work can be done on or off-site. If offsite, provide a tracking system to ensure each radiator returns to its original location. This work should be coordinated with the heating system upgrade and done by a licensed and bonded contractor with experience working on historic hot water radiators.
- North entrance, first floor.
  - » Concrete stairs: clean with low pressure water, using a fan tip, no oscillating tip, and remove biological growth. Install cementitious patch at risers, using Cathedral Stone's Jahn M90 or equivalent concrete patching material. This is a mineral based repair mortar that remains vapor permeable

and can be built up in multiple layers. The loss of material at the riser is undercutting the tread which will result in tread loss if it is not supported. Remove the minimal amount of material necessary to bond the new work with the existing concrete.

  - » Metal railings: clean and repaint metal railings. Remove loose paint, prime and paint to match existing color. Do not paint brass finials.
  - » Porch: correct water infiltration and pooling on the porch. Replace the added topping slab. Add a floor drain and slope slab surface to drain. Connect floor drain to building footing drain. Upgrade the interior structural members based on the structural assessment for the house.
  - » Repair the west north/south beam supporting the porch roof. This beam is settling against the house and separating from the house. Repair the 24-inch-long split at the south end of the beam's inner face.
  - » Repair/rebuild the base of the northeast post to correct the opened joints. As part of this work, inspect the internal structural element within the wood cladding to determine why the concrete is cracking and if there is an internal steel element that is corroding and jacking. If so, clean and coat or replace the metal structural element.
  - » Install weather stripping at the north doorway.
  - » Relevel the broken and irregular sidewalk pieces at the base of the stairs. The tree root at this location has broken up the concrete. Photograph and label pieces prior to removal. Remove soil and pack a sand/crushed rock base for drainage and resetting of the concrete sidewalk pieces. In-fill with sand and fine crushed rock to bridge voids between the concrete as needed. The tree will keep growing, breaking up any new concrete poured at this location. The original concrete has a notable red coloring and scoring that is important to retain as long as possible. Removal of the tree roots could potentially kill the tree.
- Condition:
  - » Parging loss on concrete tread.
  - » Broken corners at bottom tread.
  - » Metal railing exhibits paint loss and corrosion.
  - » Jacking and splitting of concrete at lower cheek wall.
  - » Biological growth.
  - » 1/8" wide crack off west side of porch, running up through shingles and down across garage header.
  - » West north/south porch beam supporting porch roof, beam appears to be settling against the house, pressing down on the window header trim and separating 1/16" plus from the house. At the north end is has a 1-2" deflection within the first 12". The beam has a 24" long split at south end of the beam on the interior face.
  - » Northeast post: water entry to interior, separation at joints at base, cracking of concrete at this location.
  - » North south 2x6 joists on 24-25" centers span porch but the ceiling is bead board and carried on 2x4s on 24-25" centers that span east west, these are not connected to north south joists. Need to add metal straps to pick up loading.
- Exterior painting: repaint the north end of the west facade. Paint at this gable end is failing with multiple areas of paint loss exposing the wood shingles. This area should be repainted using the existing color scheme to avoid the cost of repainting the entire house.
  - » East facade, fill nail holes at the south end of the facade just off the header of the southernmost window. Touch up fill locations with matching paint.
  - » West facade oil tank lines, caulk around entry locations as temporary seal until the heating system is changed and these lines can be removed and the shingles patched.
- Kitchen cabinets: clean and repair existing cabinets.
  - » At the west end of the lower cabinets there are two split door stiles. These are part of later cabinet additions to the kitchen.

They should be removed and stabilized and repainted and reinstalled.

Office

For this phase the goal is to complete baseline building planning and secure a tenant for the building pending work in subsequent phases related to the overall site activation. The brick office, since it was historically an office, can continue to function as an office without any change of use being triggered.

Planning

- As built drawings: record the existing structure and provide backgrounds for structural assessment and repair. These will be the baseline documents guiding the rehabilitation and re-use of the building. This should be done as part of the drawings preparation for the barreling plant for economy of time.
- Structural assessment: review existing conditions and identify any deficiencies. This report will provide the understanding of the building's structural system and current issues to guide stabilization and rehabilitation. Proposed public and commercial uses include meetings, and commercial retail and production spaces, as well as a potential comfort station (restrooms). This should be done as part of the drawings preparation for the barreling plant for economy of time. Work should be done by a structural engineer familiar with evaluating historic wood frame building assemblies.
- Hazardous materials survey: to determine if there are any existing conditions or materials that should be abated. This should be done as part of the drawings preparation for the barreling plant for economy of time.
- Electrical inspection: by a licensed electrician to determine if there are existing conditions that are dangerous and should be addressed immediately. This should be done as part of the drawings preparation for the barreling plant for economy of time.
  - » Can king county contribute the time of an electrical codes inspector to do this inspection?
- Tenant identification: for the building to determine the scope and level of building repair and construction necessary to meet current building and energy codes. This should be coordinated with tenant identification for the barreling plant. This will drive the scope of the shell and core and tenant improvement work. This could range from a commercial tenant to a comfort station for the site.
- Heating system inspection: to enable continued low level use to maintain 55-degree temperature in the building. Have same hearing contractor as house do the inspection.
- King County building official and Historical architect site visit to review draft report, building conditions, and stabilization needs.
- Technical guidance completion for the Preservation Plan. This would include developing the catalog of character-defining features, conditions, significance analysis, and treatment recommendations relative to historic materials. This would be done as part of a rehabilitation project and would require completed as-built drawings.

Minor

- No work.

Major

- No work.

Site

For this phase the goal is correcting site drainage issues that impact the house as well as establishing the layout for wiring and plumbing systems for the Japanese Garden.

Planning

- Related property tours: FOM members should reach out to Mary Olson Farm and Bloedel Reserve, Comparative Examples in Appendix B, to arrange site visits in order to discuss with the owners/operators of these properties how they manage and operate their sites.
- Business plan: develop this based on the information in this plan to guide the operation and development of the site.
- Easement: work with adjacent land owners to determine the best approach for resolving the easement along the south side of the property.

The former cherry trees and south Japanese garden extended into this easement. In order to regenerate the trees and reconstruct the south Japanese garden this easement has to be resolved.

- King County Historic Preservation Commission: provide update briefings to the Commission on progress and proposed work to identify work that would be subject to design review and to receive input from the Commission as stakeholders in supporting long-term site stewardship.
- Civil engineering site plan: develop a site grading plan that integrates site drainage and utilities, as well as vehicular access, and universal access. The complexity of correcting site drainage within the confines of the parcel and with the surrounding slopes requires the expertise of a civil engineer.
  - » Correct storm water drainage away from the house via a footing drain and grade slope. Due to settlement grade slopes down toward the house and gutters are not connected to a footing drain. Provide a path directing storm water away from the house.
  - » Provide the layout for below grade utility conduits from the house to the exterior light standards as part of the site grading to support rewiring of the light standards.
  - » Provide the layout for below grade water connections supporting rehabilitation of the pond feature at the Japanese Garden.
  - » As an alternate, provide the layout and drainage needs for site parking identified in the site activation plan. These would likely need to be integrated with the larger site drainage, parcel boundaries, and wetland areas. This work would likely be implemented at a later stage, but the planning ground work would inform fund raising and coordination with other work.
  - » Geotechnical soil sampling to determine soil drainage and loading conditions to inform design of site drainage, circulation, and parking.
- Site circulation plan: develop a site circulation plan that integrates circulation, way finding, site access, parking, and universal access for public use of the site. This should be coordinated with the civil engineering work.
  - » Universal access for the site. A priority is to provide universal access to the home from the site parking. Universal access grading to provide an approach, if possible, from the parking area along the west side of the house to connect with a future universal access lift at this doorway. The doorway is 36-inches wide and provides a route to the interior hallway and front living and dining room. The site approach would retain the original sidewalk and either run parallel to or come in at a different angle. Ideally the surface would consist of a hardpack, non-concrete surface similar to future walking trails in the wooded area and the parking lot. Work has gone into charting overall site circulation, however, specific circulation within that framework relative to the residential site features is needed. The original site and gardens were connected with a minimal of paths – the only pavements being the graveled driveway and parking/service areas and the concrete pavements up to and around the house. The Gardens were set within a sea of well-maintained lawn. The North Garden had a stone trail mounting the hill, which is largely extant. There is no indication of a similar trail at the South Garden. The former South Garden originally extended up close to the southeast corner of the house; however its removal has extensively altered this area leaving a potential route for universal access from around the south and west sides of the house to the front lawn. A universal access route should be developed that links activities, within minimal impacts to historic site features.

Minor

- Remove the previously added chain link fence along the east side of the north portion of the site, along 107th Avenue Southwest.
- Interpretive signage: develop preliminary signage around the house, Japanese garden, and barreling plant to provide basic interpretation and orientation functions. These would be expanded following development of an interpretive plan in phase 2.

Major

- Site drainage correction: construction of the site drainage plan to regrade soil around the house, install a foundation drain, install underground conduit connecting to the exterior light standards from the house, and install site drainage away from the house. Construction of the parking would be an alternate, contingent on funding. Parking on the gravel in front of the barreling plant once acquisition is finalized would serve as the primary parking area since the current area north of the house is notably soft during wet weather.
  - » Correct northwest entrance stair settlement as part of site grading.
  - » Replace contemporary concrete along the north side of the house. Regrade to slope away from the house. Match new concrete work to the adjacent original concrete.
  - » Connect drain exiting from north end of the building that services the floor drain at the bottom of the west basement entrance stairs to the foundation drain.
- Sidewalk repair: repair the original sidewalks and landings. The sidewalks are key features of the classic American front yard design of a lawn and sidewalk that contrast with the Japanese garden design. The repair approach should bring settled sidewalk sections back into alignment and replace broken off corners and small sections with packed crushed gravel. The intent is to provide a safe walking surface while retaining the greatest amount of original materials possible.

Woods

For this phase the goal is maintaining current conditions pending work in subsequent phases related to the overall site activation.

Planning

- No work.

Minor

- No work.

Major

- No work.

House and Grounds

General maintenance and repair provides immediate and significant improvements to landscape appearance in the near term, and provides the opportunity for volunteers and selected professionals to better understand the scale, scope and timing of site restoration. However, for this phase the primary goal is maintaining current conditions pending work in subsequent phases related to the overall site activation.

Planning

Meet and review report materials with FOM and discuss and determine landscape restoration approach as follows:

- Garden tours: FOM members should reach out to the Comparative Japanese Garden examples in Appendix B to arrange site visits in order to discuss with the owners/operators of these gardens how they manage and operate their sites.
- Perimeter 'Kanzan' Cherry Trees: Re-establish cherry trees based on their original locations. This would entail preparation of a 20 scale planting plan (from available information, based on 1936 aerial, verified per GPS, field checking), planting and ongoing watering until the trees are mature. Recommend continued use of 'Kanzan' cultivar. FOM would then continue with maintenance and pruning of the trees, utilizing these as educational activities for the community. Prioritize planting along 107th Avenue Southwest. Recommend installation of trees in the fall season or late winter season

to support growth without major irrigation requirements. Alternately, the watering requirements should anticipate using a hose line connected to a house spigot with a drip system at each tree and a timer at the spigot to provide initial water needs until an irrigation system is installed.

  - » Work with cherry trees along the south would require access resolution within the easement area.
  - » Work with cherry trees along the west side should wait until site grading for drainage and parking have been completed to avoid damage to the tree roots.

- Alternating Conifers: Most conifers were removed; those that remain are towering over the property. Discuss whether to re-introduce conifers as originally installed. Conifers that were marking the south edge of the garden are now on neighboring property and would require access resolution within the easement area. Discuss whether to reintroduce conifers along the west side, although this effort should wait until site grading for drainage and parking have been completed to avoid damage to the tree roots.
- Row of Roses at Barreling plant, and at South Garden perimeter: Discuss whether to re-introduce Roses north and south as originally installed. Recommend consider this effort pending regrading, drainage improvements, and work in subsequent phases related to the overall site activation.
- North Triangle Area: Originally ringed by cherry and conifer trees, and substantially revised over time, the intention is to remove the driveway. Recommendation is to restore the perimeter plantings and discuss treatment approach for the triangle itself, which has been revised numerous times.
- Kitchen/House Garden: For this phase the primary goal is maintaining current conditions pending work in subsequent phases related to the overall site activation. These trees are later additions to the site and not part of the period of significance; however, until a plan is developed for the Kitchen garden, they should be retained.
- Lawn: The well graded, planted, maintained and watered lawn remains only as a well graded plane. Restoration of irrigated lawn should be discussed as part of an overall maintenance strategy; priority should be to maintain the lawn associated with the Front Yard and the North Garden.

As determined, plans may be required:

- Landscape plan, including plant removal and pruning recommendations, stonework repairs and soil preparation requirements.
- Irrigation plan, based on overall water strategy for property, considered within framework of house and gardens. Permanent irrigation is not original to the site.
- Planting plan, would identify species, locations and plant quantities.

Minor

- Perimeter 'Kanzan' Cherry Trees: Prune the existing trees only as needed to remove hazardous or dead branches. Evaluate condition of trees in anticipation of likely eventual replacement.
- Alternating Conifers: Prune the existing trees only as needed to remove hazardous or dead branches.
- Kitchen/House Garden: Prune the existing trees as part of ongoing maintenance.

Major

- No work.

Front Yard

General maintenance and repair provides immediate and significant improvements to landscape appearance in the near term, and provides the opportunity for volunteers and selected professionals to better understand the scale, scope and timing of site restoration. For this phase the primary goal is maintaining current conditions pending work in subsequent phases related to the overall site activation.

Planning

Meet and review report materials with FOM and discuss and determine landscape restoration approach as follows:

- Stone steps up to the lawn, rockery: review any necessary repairs to this dry-laid stonework, mostly to ensure stonework is stable.
- Concrete planters at edge of steps to house: Discuss and determine priority to replace or replicate planters.
- Foundation plantings at front: Discuss and determine priority to install new plantings at front of house. Irrigation is recommended. Based on the limited available documentation, endeavor to restore plantings to period of significance.
- Lawn: Originally this was perfect lawn -- grassed, maintained, watered. Discuss and determine priority to restore, maintain lawn, including irrigation and reseeding or re-sodding.

As determined, plans may be required:

- Landscape plan, including plant removal and pruning recommendations, stonework repairs and soil preparation requirements.
- Irrigation plan, based on overall water strategy for property, considered within framework of house and gardens. Permanent irrigation is not original to the site.
- Planting plan, would identify species, locations and plant quantities.

Minor

- No Work.

Major

- Rewire lamp posts: run wires through the conduits installed as part of the site drainage connection. Refit lamp posts with LED ballasts. Reinstall glass globe stored in basement. Work should be done to commercial building code standards, by a licensed and bonded contractor with experience working on historic buildings. Coordinate with site drainage design and site drainage correction.

North Japanese Garden

For this phase the goal is planning for repairs and improvements to the garden. Already identified is to return the north garden water feature to active use as a part of the overall site educational functions. Completing the water feature restoration will allow planting to follow. However, planting restoration is not dependent on repairing the water feature. Recommend preparation of landscape plans (landscape plan, irrigation plan, and planting plan).

Planning

- North garden water feasibility: interview and select a contractor to undertake the restoration of the north garden water feature. The contractor should have extensive experience working on historic Japanese gardens. The goal is to determine the level of repair needed. Historically the pond was never a high design feature, consequently care will be needed to ensure repairs do not create a new feature that never existed and exceeds the original level of design and function. Consult directly with a specialty Japanese Garden contractor to determine the best approach on the water features to retain the highest level of integrity and lowest long-term operating and maintenance costs.
- North garden water feature design: develop the approach and designs needed to repair/restore the water features for the north garden. This should benefit from previous site grading work providing routes for below grade water pipes to the garden.
- North garden landscape approach: Meet and review report materials with FOM and discuss and determine landscape restoration approach. Planning for this work can proceed relatively independently from the restoration of the water feature. Work should be undertaken in small steps to learn as work proceeds and provide a more manageable undertaking scope. There are two primary options:
  - 1) based on available documentation, endeavor to restore garden to period of significance. This entails careful review of available photographic and field documentation to prepare a planting plan, and detailed review to identify likely original plant varieties.
  - 2) because of limited available documentation, and with limited extant of original plantings, determine plant selection or layout based on consideration for original plantings but with an understanding of current plant availability and planting approach.

- » Considerations for both approaches:
  - ◊ The landscape plan, for either approach, would include plant removal and pruning recommendations, stonework repairs and soil preparation requirements.
  - ◊ The irrigation plan, for either approach, should be based on overall water strategy for property, and should be considered within framework of house and gardens. Permanent irrigation is not original to the site.
  - ◊ Planting plan would identify species, locations and plant quantities.
  - ◊ Ultimately, the recommended approach should include input from a landscape contractor. The contractor should have extensive experience working on historic Japanese gardens. Consult directly with a specialty Japanese Garden contractor to determine the best approach on the water features to retain the highest level of integrity.

Minor

- Weeding: following the plant survey to identify historic plants, remove contemporary invasive plants. This work was completed in the Fall of 2016 and made a dramatic improvement in the visual character of the garden. This work was done by skilled volunteers.

South Japanese Garden

The north side of the garden partially remains, in particular the evocative segment of stonework and large round stone south of the walk. In this phase the goal is discuss and determine the extent of restoration or reconstruction warranted.

Planning

- South garden landscape approach: Meet and review report materials with FOM and discuss and determine landscape preservation approach, which could range from stabilization to restoration of remaining features and partial reconstruction. Restoration to original conditions is not possible given the limited documentation.
  - » Further excavation is warranted, to determine the extent of pond and stonework remaining on the north side of the garden.
  - » The landscape plan, would include plant removal and pruning recommendations, stonework repairs and soil preparation requirements.
  - » The irrigation plan should be based on overall water strategy for property, and should be considered within framework of house and gardens. Permanent irrigation is not original to the site.
  - » Planting plan would identify species, locations and plant quantities.
  - » Given the level of reconstruction required, in particular with the former pond, early input from a specialty Japanese Garden contractor is recommended to determine the best approach on the pond to determine the appropriate construction technique.

Minor

- Weeding: following the plant survey to identify historic plants, remove contemporary invasive plants. This work was completed in the Fall of 2016 and made a dramatic improvement in the visual character of the garden. This work was done by skilled volunteers.
- Preliminary skilled pruning of existing Fatsia plant and conifers to better reveal extant of original garden.

Phase 2 2018-2019

The goal for this phase is to undertake major restoration and site activation projects that build off the preservation and repair work in the first phase. Tenants should have been identified for the barreling plant and office and this phase would move forward work to bring them into

these buildings.

Agricultural Fields

For this phase the goal is to bring the fields into use as part of the overall site educational functions.

Planning

- Crop identification: build upon use planning to develop a plan for activation of the field as part of the overall site programming. This should include what plants to cultivate and how they relate to and support the overall site interpretation. Determine if the existing non-historic fruit trees should remain and if any should be removed.
- Soil test to determine if there are any hazardous materials residual in the soil from past agricultural activities and how to address these.
- Soil test to determine the make up of the soil and its viability for agricultural activities and what amendments would be needed.

Minor

- Field cultivation: implement plan developed in use identification to till, grade, and plant the field. Planting of a cover crop to control invasive species and to support enriching of the soil.

Major

- No work.

Barreling Plant

For this phase the goal is finish the work necessary for a tenant(s) to move into and use the building as a part of the overall site educational functions.

Planning

- Design development: develop design and construction drawings for the rehabilitation and tenant improvements for the building. Take the design through King County Landmarks Commission certificate of appropriateness design review and permitting. This may be done by the tenant(s) or jointly with the FOM. Work should be done by an architect with experience working on historic buildings. The cost estimate includes architect, engineering, and sub consultant fees through completion of construction.

Minor

- No work.

Major

- Rehabilitation: rehabilitate the building to support proposed uses. Implement seismic upgrades identified in the structural assessment. Utilize the as-built drawings to support the development of design drawings. Due to the complexity and scale, this work will require a general contractor to implement. The general contractor should have prior experience working on historic buildings.

House

For this phase the goal is implement restoration work and provide universal access as a part of the overall site educational functions.

Planning

- Basement sheet rock: decide if restoring the original sheetrock finish in the north portion of the basement and garage is desired from a functional or interpretive standpoint based on level of public access to this space. There are existing remnants of the original sheetrock remaining in the spaces that could be left if a sheetrock finish is not restored and leaving the ceiling open facilitates access to electrical and plumbing connections. If public access is

provided to this space, then there may be an interpretive benefit to having the sheetrock in all or part of the originally sheet rocked spaces.

Minor

- No work.

Major

- Window restoration: correct deferred maintenance on all 31 original windows. This would be a project that could be undertaken in phases or as a single project and provides an excellent opportunity for community education. Repair loose joints, rebuild selective wood members, return sash to operation, replace failed chords, replace glazing putty, and repaint sash and casings. Repaint sash, trim, and casings to original paint scheme. Work should be done by a licensed and bonded contractor with experience working on historic buildings.
- Water heater: upgrade water heater based on house usage needs.
- Storm windows: construct exterior wood storm windows for all windows. Existing storms are not fitted to the openings. This work could occur as part of the window restoration or as a subsequent phase.
  - » Bedroom, southeast: restore the bedroom space.
  - » Remove added scalloped ceiling finish. Repair and repaint the ceiling.
  - » Light fixture, cleaned and reinstall. Brass finish below added paint.
- Bedroom, southwest: restore the bedroom space.
  - » Remove added scalloped ceiling finish. Repair and repaint the ceiling.
  - » Light fixture, cleaned and reinstall. Brass finish below added paint.
- Bathroom: restore the space.
  - » Clean paint from hinges at vanity.
  - » Fabricate new wood dowel for toilet paper holder.
- Living Room: restore the space.
  - » Remove added scalloped ceiling finish. Repair and repaint the ceiling.
  - » Replace contemporary wall sconces with period appropriate fixtures. There are no known interior photographs indicating if the room originally had wall sconces or what style they were. Evidence of a previous ceiling light was not found at the attic. The wall sconces provide the only artificial lighting within the room.
- Dining Room: restore the space.
  - » Restore the former doorway connecting to the office. Remove the added fill. A slight arch outline is evident on the office side of the opening, suggesting an entry and functional role similar to the arched entry off the main east entrance to the living room. Replicate missing casings. Since the doors and hardware used in the house are typical for the period, there is strong potential that a matching door and hardware could be found through Second Use. FOM members could start searching the online catalog for the site once work on this project will proceed.
  - » Repair and refinish the door between the dining room and kitchen.
- Office: restore the space.
  - » Remove added sheet rocks over plaster down to the studs. Rewire the room and insulate the outer walls.
- Hallway: preserve the space.
  - » Restore missing baseboard behind the desk along the north wall, behind the fireplace.
  - » Repaint the attic hatch.
- Parlor: restore the space.
  - » Remove added scalloped ceiling finish. Repair and repaint the ceiling.
  - » Patch holes in walls from former picture mounts.
  - » Remove the added phone jack box at the south wall.
- Basement: preserve the space.
  - » Repair and repaint the original wood bathroom stall in the northwest corner. Replace the existing contemporary toilet with a contemporary low-flow unit.
  - » If desired, install sheet rock throughout the north portion and the garage per the original

configuration.

  - » Work: repaint don't strip based on colors, remove hardware and clean hardware and reinstall.
  - » Patch void in southeast corner of south basement area slab.
  - » 2-2.5" gap under doors need to install weather strip on interior to close off. Same at meeting stiles which have a .5" gap
  - » Crack on west side is along south side of window opening. Thu wall and up to ¼" wide. Top of window casing tilted out to north by .5" at top. Settlement down and to the north of this wall.
- Kitchen restoration: correct previous alterations to the kitchen and restore the space to its original character for continued use and interpretive value.
  - » Remove added sheetrock layers on the walls. Insulate and rewire the kitchen. Repair and refinish all original trim and baseboards. Install sheetrock with a lightly sanded plaster skim coat and paint. Match to the original sanded finish.
  - » Replace the contemporary crown molding with a replica matching the original molding in the dining room.
  - » Remove added drop ceiling in the northeast corner to exposed the original curved ceiling profile. Install sheetrock with a plaster skim coat and paint.
  - » Repair and repaint the original cabinets. Inspect upper cabinet wall attachment and replace or reinforce as needed. Remove added paint from all cabinet hardware.
  - » Replace the previously added counter with a period appropriate wood replacement.
  - » Repair the bench in the breakfast nook.
  - » Provide an oil finish on the fir floor, but avoid resanding if possible. The intent is not to have the floor look like new but to retain the some of the patina of age while enabling the floor to continue its functional role.
  - » Universal Access: this builds on work started as part of the site grading and drainage correction. This work would replace the previously added west stairs with a universal access lift. The west first floor entrance is 36 inches wide and the stairs have been previously modified. This entrance also affords unique access from the main point of arrival on the site to the building's hallway, which in turn connects all of the major spaces in the house.
- Attic insulation: insulate the attic to reduce ongoing heating costs. Work should be done by a licensed and bonded contractor with experience working on historic buildings. This work cannot happen before electrical upgrades as there are extensive runs of knob and tube circuits as well as open junction boxes that need to be upgraded prior to insulating.
  - » Clean out the attic. Remove roofing debris, the R19 fiberglass over the kitchen (inadequate and poorly installed), and remove the contemporary water heater on the south side of the chimney. Retain the other two steel heaters in place.
  - » Install blow in insulation throughout the attic. Hold back from edges or install baffles to keep eave vents open. Coordinate to follow electrical installation. Within the south end of the attic, install insulation under the original tongue and groove flooring from the sides.

Office

For this phase the goal is finish the work necessary for a tenant(s) to move into and use the building as a part of the overall site educational functions.

Planning

- Design development: develop design drawings for the rehabilitation and tenant improvements for the building. Take the design through King County Landmarks Commission certificate of appropriateness design review and permitting. This may be done by the tenant(s) or jointly with the FOM. Work should be done by an architect with experience working on historic buildings. This work could be coordinated with the barreling plant for economy.

Minor

- No work.

Major

» Rehabilitation: rehabilitate the building to support proposed uses. Implement seismic upgrades identified in the structural assessment. Utilize the as-built drawings to support the development of design drawings. Due to the complexity and scale, this work will require a general contractor to implement. The general contractor should have prior experience working on historic buildings. This work could be coordinated with the barreling plant for economy.

House Garden

For this phase the goal is to plan and then develop the house garden as a part of the overall site educational functions.

Planning

- Crop identification: identify the size and which plants will be cultivated. If there is interest and mutual benefit, this could be done in coordination with the barreling plant tenant, the farmers market, or other interested parties to have a broader role and community benefit in addition to its onsite educational role. Identify how the garden will be interpreted, managed, maintained, and harvested..
- Soil test to determine if there are any hazardous materials residual in the soil from past agricultural activities and how to address these. This should be done as part of the field testing.
- Soil test to determine the make up of the soil and its viability for agricultural activities and what amendments would be needed. This should be done as part of the field testing.

Minor

- No work.

Major

- Garden cultivation: establish the house garden, developing the site, preparing the soil, and plantings.

Front Yard

For this phase the goal is to restore the front yard as a part of the overall site educational functions.

Planning

- No Work.

Minor

- Weeding and pruning: ongoing weeding and pruning of plants within the rockery.

Major

As determined, complete repairs and improvements as follows:

- Stone steps up to the lawn, rockery: reset, repair dry-laid stonework, mostly to ensure stonework is stable.
- Concrete planters at edge of steps to house: replace or replicate planters.
- Foundation plantings at front: install new plantings at front of house. Irrigation is recommended.
- Rockery plantings: return the rockery to its peak historic character based on site documentation and existing features. Replant missing plants along the rock retaining walls. Irrigation is recommended.
- Lawn: restore, maintain lawn, including irrigation and reseeding or re-sodding.
- Develop walking paths as needed between the Front Yard and the overall site circulation network.

North Japanese Garden

For this phase the goal is to restore the north garden planting as a part of the overall site educational functions. This work can proceed relatively independently from the restoration of the water feature. following completion of the water feature.

Planning

- No Work.

Minor

- Weeding and pruning: ongoing weeding and pruning of plants within the Japanese garden. This should be done under the direction of a skilled volunteer or professional and can provide an important community education and outreach.

Major

As determined, complete repairs and improvements as follows:

- Stone steps up to the lawn, rockery: reset, repair dry-laid stonework, mostly to ensure stonework is stable.
- Concrete planters at edge of steps to house: replace or replicate planters.
- Foundation plantings at front: install new plantings at front of house. Irrigation is recommended.
- Lawn: restore, maintain lawn, including irrigation and reseeding or re-sodding.

Major

- North garden restoration: return the garden to its peak historic character based on site documentation and existing features. Install Irrigation. Replant missing plants on the hill.
- Develop walking paths as needed between the North Garden and the overall site circulation network.

South Japanese Garden

- For this phase the goal is to retain and repair extant plantings in anticipation of restoration and reconstruction of the garden in Phase 3.

Planning

- No work.

Minor

- Weeding and pruning: ongoing weeding and pruning of plants within the South Japanese garden. This should be done under the direction of a skilled volunteer or professional and can provide an important community education and outreach opportunity.

Major

- No work.

Site

For this phase the goal is to continue cherry tree regeneration following completion of site grading work as a part of the overall site educational functions.

Planning

- Marketing and branding: this should be undertaken as part of re-use of the barreling plant and office in order to provide FOM a means to inform the public image of the site that can both support related uses on site and also ensures that FOM's mission for the site is not subsumed by related uses coming to the site. Establishing a logo and using the materials in this plan to guide a marketing identity for the site can be powerful tools in supporting educational, interpretive, and economic goals for the site. This should be coordinated with and support the site's business plan and should include a robust public and community outreach component in its development.
- Interpretation plan: development of an interpretation plan for the site the integrates all of the resources and addresses educational goals for the site. Build off of the themes and stories identified in the historic context statement. This would address signage and interpretation for the full property.
- Lighting assessment: conduct a lighting assessment to determine lighting level needs relative to property security and programming needs and goals. This study should follow completion and reactivation of the original exterior light standards and should consider overall compatibility of any new lighting approaches. This should be coordinated with the parking development and allow for a phased approach on implementation.

Minor

- Cherry tree regeneration: replant missing cherry trees at all remaining original locations once the site grading for drainage and easement area are resolved. These would be along the west and south sides of the house and northwest side of the Japanese Garden. Follow the same tree selection, planting and ongoing watering process used for those along 107th Avenue Southwest.

Major

- Perimeter 'Kanzan' Cherry Trees: Install remainder of trees, extending drip irrigation, along south easement area and west side.
- Alternating Conifers: Install trees as determined.

- Row of Roses at Barreling plant, and at South Garden perimeter: Install roses pending regrading, drainage improvements, sustainability considerations, and work in subsequent phases related to the overall site activation.
- North Triangle Area: Cherry trees will have been replaced. Restore triangle itself, which has been revised numerous times.
- Strawberry garden: develop strawberry garden along the south side of the barreling plant. This should utilize the historic strawberry species cultivated and packed historically at the barreling plant. Interpretive and retail activities should be developed around the garden.
- Parking construction: construct gravel parking lot between the house and barreling plant.

Woods

For this phase the goal is begin development of baseline data that will inform design and construction work in the next phase as a part of the overall site educational functions.

Planning

- Tree and plant identification: utilize volunteers to begin tree and plant identification within the wooded area for educational purposes and to inform trail and interpretive information development.

Minor

- No work.

Major

- No work.

Phase 3 2020-2021

The goal of this phase is to expand outward from the core historic buildings to complete work in the west portion of the site supporting broader interpretive and educational goals.

Agricultural Fields

For this phase the fields should be under cultivation and in active use. Any additional work for this phase would stem from new data based on the use and development of the fields.

Barreling Plant

For this phase the barreling plant should be in active use by tenants. Any additional work for this phase would stem from new data based on the use and development of the building.

House

For this phase work focuses on wrapping up exterior work that was not as urgent relative to building condition and operation.

Planning

- No work.

Minor

- No work.

Major

- House painting: repaint the house exterior to the original paint scheme. This should be timed based on the condition of the existing paint to correct deteriorated conditions.
- Storm windows: Construct new exterior wood storms fitted to the openings and compatible with the overall character of the building. These will provide weather protection for the windows and improve energy efficiency.

Japanese Garden

For this phase work focuses on extending and compatible new design of the Japanese Garden to its full former extent. Historically the garden included the triangular north tip into which the office was constructed as well as a substantial south portion that anchored the south edge of the front lawn and site.

Planning

- No work.

Minor

- No work.

Major

- South garden construct a new compatible design to return the south garden. This garden was substantially lost due to previous alterations. There is insufficient archival data to accurately reconstruct the garden; however, there is sufficient archival data to guide the construction of a compatible new design that would complement the overall site and north garden.
- North end: remove non-historic trees and plantings along the north portion of the former Japanese garden. This area occurs around the office building. Extend historic plantings based on photographic documentation to better restore the historic integration of this north area with the main Japanese Garden and provide greater visual continuity along the main entry to the site. Develop walking paths between the house and office within this area as needed. These should be compatible with the overall design of circulation networks within the site.

Office

For this phase the barreling plant should be in active use by tenants. Any additional work for this phase would stem from new data based on the use and development of the building.

Site

For this phase work focuses on construction of compatible new facilities within the site to support expanded educational and interpretive efforts.

Planning

- No work.

Minor

- No work.

Major

- North Triangle: remove non-historic trees and plantings along the north portion of the former Japanese garden. This area occurs around the office building. Extend historic plantings based on photographic documentation to better restore the historic integration of this north area with the North Japanese Garden and provide greater visual continuity along the main entry to the site.
- Develop walking paths between the house and office within this area as needed. These should be compatible with the overall design of circulation networks within the site.
- Shed: construct shed to support farm operation, located along the north side of the farm fields. Design should be compatible with the overall character of the site and historic agricultural buildings.
- Shed or comfort station: construct shed or comfort station at west end of the strawberry garden to support site functions and walking tours. Design should be compatible with the overall character of the site and historic agricultural buildings.
- Bunkhouse and outdoor stage: construct a new facility similar in scale and massing to the former bunkhouse and an outdoor stage immediately west of the barreling plant to support site interpretive efforts. The new building would support educational and interpretive activities on the site.

Woods

For this phase work focuses on cleaning up and providing access to the wooded area to support expanded educational and interpretive efforts.

Planning

- Trail and interpretation design: develop design documents for the implementation of the walking trails and interpretive displays through the wooded area in the west portion of the site. This work should coordinate with surrounding neighbor interests and connectivity with existing trail networks. The intent of this trail is to interpret both the historic bunk house locations and the natural environment.

Minor

- No work.

Major

- Debris removal: junk discarded in the wooded area to clean up the west portion of the site. Debris ranges in size from old plastic plant pots to abandoned vehicles.
- Trail and interpretive construction: construct walking trails through the wooded area. Connect with existing trails.
- Dining room Two 8:1 windows in north wall. *These windows are missing aprons.
- Apron missing on west kitchen window.

House Garden

For this phase the house garden should be in active use. Any additional work for this phase would stem from new data based on the use and development of the garden.

South Japanese Garden

Construct a new compatible design to return the south garden. This garden was substantially lost due to previous alterations. There is insufficient archival data to accurately reconstruct the garden; however, there is sufficient archival data to guide the construction of a compatible new design that would complement the overall site and north garden.

Planning

- No work.

Minor

- Weeding and pruning: ongoing weeding and pruning of plants within the South Japanese garden. This should be done under the direction of a skilled volunteer or professional and can provide an important community education and outreach opportunity.

Major

- Return the garden to its peak historic character based on site documentation and existing features. Replant missing plants on the hill.
- Develop walking paths as needed between the South Garden and the overall site circulation network.

Window Conditions

Window numbering starts with the west facade and proceeds in a counter-clockwise sequence around the building. The first letter on the ID indicates which facade W (west). The first number indicates the floor level. The second number is the series number and proceeds from left to right on each facade.

ID	Conditions	Treatment
W1.1	▪ Paint loss on sill ▪ Partial drip flashing at header, missing at north end ▪ Caulk deteriorated around edge of transition molding between casing and shingles ▪ Storm windows not well fitted ▪ Glazing putty deteriorated ▪ No weather stripping	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair/replace in kind header flashing ▪ Replace sash chords
W1.2	▪ Paint loss on sill ▪ Partial droop flashing at header ▪ Caulk deterioration around edge of molding ▪ Storm window not well fitted ▪ Glazing putty deteriorated ▪ Brackets from original storms along header ▪ No weather stripping	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair/replace in kind header flashing ▪ Replace sash chords
W1.3	▪ Failed glazing putty ▪ Loose joints on sash ▪ Storm window not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ Drip flashing bent up along outer edge directing water back against building ▪ Paint loss on interior ▪ Water damage along stool at north end ▪ Rusted hardware ▪ Sash chords missing ▪ No weather stripping	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair/replace in kind header flashing ▪ Replace sash chords ▪ Clean and oil hardware ▪ Repair loose joints in sash

ID	Conditions	Treatment
W1.4	▪ Failed glazing putty ▪ Loose joints on sash, particularly at upper sash ▪ Storm window not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ Drip flashing bent up along outer edge directing water back against building ▪ Sash chords missing ▪ No weather stripping	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair/replace in kind header flashing ▪ Replace sash chords ▪ Repair loose joints in sash
W1.5	▪ Failed glazing putty ▪ Loose joints on sash ▪ Storm window not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ Drip flashing bent up along outer edge directing water back against building ▪ No weather stripping	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair/replace in kind header flashing ▪ Repair loose joints in sash
WB.1	▪ Failed glazing putty ▪ Loose joints on sash ▪ Weathering at wood on sash ▪ No drip flashing, concrete sloped out over trim ▪ No weather stripping	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash
WB.2	▪ Failed glazing putty ▪ Loose joints on sash ▪ Caulk failing at jamb/sill junction ▪ Joint around edge of molding between stucco and wood open ▪ Shingles do not lap trim around window, allows water back in above window header, no drip flashing, some caulk added but failing ▪ No weather stripping	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Install header flashing ▪ Caulk joint between brick molding and stucco ▪ Repair loose joints in sash

ID	Conditions	Treatment
WB.3	▪ Failed glazing putty ▪ Loose joints on sash ▪ Shingles do not lap trim around window, allows water back in above window header, no drip flashing, some caulk added but failing ▪ No weather stripping	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Install header flashing ▪ Caulk joint between brick molding and stucco ▪ Repair loose joints in sash
S1.1	▪ Failed glazing putty ▪ Loose joints on sash ▪ Significant material loss on upper west sash due to paint loss and material exposure ▪ Storms not well fitted ▪ Failed bottom rail joint at east lower sash ▪ Cracks at jambs and sill ▪ No weather stripping ▪ Sash latch attached with wood piece on east sash ▪ No header flashing	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Rebuild failed joint and upper west sash members as needed ▪ Install header flashing
S1.2	▪ Failed glazing putty ▪ Loose joints on sash ▪ Storms not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ No drip flashing ▪ New sash locks at interior ▪ Material deterioration along interior top side of bottom rails ▪ Added curtains ▪ Stool pushed out from wall a half-inch at east end ▪ Water damage at bottoms of stiles ▪ Split in interior east stop at top	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Install header flashing ▪ Reattach stool ▪ Repair bottoms of stiles and split

ID	Conditions	Treatment
S1.3	▪ Failed glazing ▪ Loose joints on sash ▪ Storms not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ No drip flashing at header ▪ Metal brackets added at joints on lower east sash ▪ Caulking at moldings/shingles failed ▪ Two broken panes ▪ Horizontal muntins offset on upper east sash ▪ Sash screwed shut ▪ Water damage on either end of bottom rail of east sash ▪ Sash chords missing	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Remove added metal brackets and repair sash joints ▪ Renew caulking at exterior molding/shingles ▪ Replace broken panes ▪ Repair horizontal muntins ▪ Return sash to operation ▪ Repair water damage along bottom of east sash and rebuilt in kind as needed ▪ Replace sash chords
E1.1	▪ Failed glazing ▪ Loose joints on sash ▪ Storms not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ No drip flashing at header (too short, just above molding) ▪ Sash screwed shut ▪ Added curtains	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Return sash to operation ▪ Install new drip flashing
E1.2	▪ Failed glazing ▪ Loose joints on sash ▪ Storms not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ No drip flashing at header ▪ Loose shingles in row below sill	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Reattach loose shingles ▪ Install new drip flashing

ID	Conditions	Treatment
E1.3	▪ Failed glazing ▪ Loose joints on sash ▪ Storms not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ No drip flashing at header ▪ Split at south end of bottom rail ▪ Holes from fasteners in casings	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Install new drip flashing ▪ Repair holes ▪ Return sash to operation
E1.4	▪ Failed glazing ▪ Loose joints on sash ▪ Storms not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ Drip flashing bent up at outer edge directing water back against building ▪ Weathering at wood on sash ▪ Sash screwed shut ▪ Split in stop and header casing at north end	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Return sash to operation ▪ Repair split in casing
EB.1	▪ Failed glazing ▪ No drip flashing at header ▪ Weathering at wood on sash	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Install drip flashing
Eb.2	▪ Failed glazing ▪ Loose joints on sash ▪ Weathering at wood on sash ▪ No drip flashing at header, shingles extend down over top of header trim ▪ Significant material loss at one of the muntins leaving gap	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Rebuild failed mutin
Eb.3	▪ Failed glazing ▪ Loose joints on sash ▪ Storms not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ No drip flashing at header	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash

ID	Conditions	Treatment
N1.1	▪ Failed glazing putty ▪ Loose joints at sash ▪ Storm not well fitted ▪ Gaps at sill and jamb connection ▪ Weathering on wood at sash ▪ No drop flashing at header ▪ Gutter mounted to face of sill ▪ Bottom sash does not close fully at west end, lower sash does not fully close, wood block added at meeting rail to adjust sash lock to accommodate ▪ Sash screwed and painted shut	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Install drip flashing at header ▪ Return sash to operation and replace sash chords
N1.2	▪ Failed glazing putty ▪ Loose joints on sash ▪ Gaps at sill and jamb connection ▪ No drip flashing at header, but under porch ▪ Sash does not fully close, but screwed in place, gap at bottom rail above sill on west end	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Return sash to operation and replace sash chords
N1.3	▪ Failed glazing putty ▪ Loose joints in sash ▪ Gaps at sill and jamb connection ▪ Weathering at wood on sash ▪ No drip flashing at header, but under porch ▪ Sash screwed and painted shut ▪ Broken pane ▪ Sash does not full close, with added block at meeting rail for sash lock	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Return sash to operation and replace sash chords ▪ Replace broken glass
N1.4	▪ Failed glazing putty ▪ Loose joints at sash ▪ Gaps at sill and jamb connections ▪ Weathering at wood on sash ▪ No drip flashing at header ▪ This window built slightly higher than rest to fit railing for porch under the sill ▪ Sash screwed and painted shut ▪ Sash chord missing ▪ Damage to a section of casing and stop missing at upper west side	▪ Repaint interior/exterior ▪ Reglaze ▪ New storm window ▪ Install weather stripping ▪ Repair loose joints in sash ▪ Return sash to operation and replace sash chords ▪ Install drip flashing at header

ID	Conditions	Treatment
NA.1	▪ Failed glazing putty ▪ Deteriorated paint	▪ Repaint exterior ▪ Reglaze

Grants

Grant funds for heritage activities are available from both public and private sources. The following is a typical list of grant sources. It is not exhaustive.

Public Grant Sources – Federal Government

Community Facilities Direct Loan and Grant Programs/US Dept. of Agriculture

This program provides affordable funding in the form of grants and low interest direct loans to develop essential community facilities in rural areas. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area (under 20,000 population), and does not include private, commercial or business undertakings. Public entities, community-based non-profits and Federally-recognized tribes may apply. Funds can be used to purchase, construct, and / or improve essential community facilities, purchase equipment and pay related project expenses. Eligible projects include public facilities such as town halls, courthouses, airport hangars or street improvements, Educational services such as museums, libraries or private schools; and local food systems such as community gardens, food pantries, community kitchens, food banks, food hubs or greenhouses

Community Development Block Grant Program

Community Development Block Grant (CDBG) Grants are made available annually through a competitive application process to assist small cities, towns and counties in the State of Washington in carrying out significant community and economic development projects that principally benefit low- and moderate-income persons. The Washington State CDBG Program is funded by the U.S. Department of Housing and Urban Development (HUD). The purpose is to improve and maintain the economic and physical environment of eligible, non-entitlement cities and counties to enhance the quality of life for low- and moderate-income residents and, as a result, benefit the entire community.

Public Grant Sources – State Government

The Fund for Washington's Heritage

This fund specifically supports heritage organizations that undertake capital projects with the goal of interpreting and preserving Washington's history and heritage. Non-profit organizations, tribes, and local government agencies may apply; the program is run through the Washington State Historical Society. Each HCPF grant dollar must be matched with $2, half of which may be in-kind. A ranked list of projects is forwarded to the legislature for appropriations. In recent years $10 million has been provided for these projects.

Building for the Arts

Building for the Arts was created by the Legislature in 1991 to award grants to 501(c)(3) nonprofit performing arts, art museum, and cultural organizations. The program awards grants to performing arts, art museum, and cultural organizations for up to 20 percent of eligible capital costs for acquisition, construction, and/or major renovation of capital facilities. The program is managed through the Washington State Department of Commerce and typically receives approximately $7 to $10 million in appropriations.

Heritage Barn Rehabilitation Grants

The Heritage Barn Rehabilitation Grant Program is administered by the state Department of Archaeology & Historic Preservation (DAHP) in conjunction with the Washington Trust for Historic Preservation. The grants are part of the state's Heritage Barn Preservation Initiative, established in 2007, and is designed to stabilize and preserve designated Heritage Barns across the state. Since the program's inception, Heritage Barn Grant funding has been provided to more than 50 Heritage Barns throughout Washington. Typical grant awards range from small amounts to several thousand dollars. The legislature has appropriated about $500,000 for the program in recent biennia.

Building Communities Fund

The Building Communities Fund Program awards state grants to nonprofit, community-based organizations to defray up to 25 percent or more of eligible capital costs to

acquire, construct, or rehabilitate nonresidential community and social service centers. There is no minimum or maximum grant award amount, and no match requirement. Tens of millions of dollars are distributed by the legislature each biennium.

Private Grants – National-Based

National Trust for Historic Preservation

The National Trust offers grant assistance for a variety of non-capital projects, including the following:

Preservation Services Fund—Eldridge Campbell Stockton Memorial Preserves Fund and Pacific Northwest Fund

Provides nonprofit organizations and public agencies matching grants from $500 to $5,000 (typically from $1,000 to $1,500) for preservation planning and education efforts. Funds may be used to obtain professional expertise in areas such as architecture, archeology, engineering, preservation planning, land-use planning, fund raising, organizational development and law as well as preservation education activities to educate the public. The Eldridge Campbell Stockton Memorial Preservation Fund was established in 1993 specifically for projects in the State of Washington. The Pacific Northwest Fund supports projects in Washington, Oregon, and Alaska. Three grant rounds/year.

Cynthia Woods Mitchell Fund for Historic Interiors

Assists in the preservation, restoration, and interpretation of historic interiors. Grants typically range from $2,500 to $10,000. The selection process is very competitive.

Hart Family Fund for Small Towns

Grants are intended to encourage preservation at the local level by providing seed money for preservation projects in small towns under 10,000 population. These grants help stimulate public discussion, enable local groups to gain the technical expertise needed for projects, introduce the public to preservation concepts and techniques, and encourage financial participation by the private sector. Grants typically range from $2,500 to $15,000.

Joanna Favrot Fund for Historic Preservation

The fund aims to save historic environments to foster an appreciation of our nation's diverse cultural heritage and to preserve and revitalize the livability of the nation's communities. Grants typically range from $2,500 to $10,000.

Emergency/Intervention Fund

Awarded in emergency situations when immediate and unanticipated work is needed to save a historic structure, such as when a fire or other natural disaster strikes. Funding is restricted to nonprofit organizations and public agencies. Emergency grants typically range from $1,000 to $5,000. No cash match is required.

Private Grants – State/Local Based

Valerie Sivinski Washington Preserves Fund

The Valerie Sivinski Washington Preserves Fund is a biannual grant program with the Washington Trust for Historic Preservation that provides up to $2,000 to organizations involved in historic preservation around our state. The goal of the fund is to provide small yet meaningful amounts of money to help promote historic preservation where it really happens— at the community level. Examples of eligible projects include purchasing materials or services for brick and mortar projects to preserve a property or producing publications that promote historic preservation of a specific resource. Highest priority will be given to projects that are urgent in nature, contribute significantly to the development of community preservation organizations, and/or are listed on the Washington Trust for Historic Preservation's Most Endangered Historic Properties list.

Kibei Giving Circle

An outgrowth of the Asian Americans/Pacific Islanders in Philanthropy (AAPIP), the Kibei Giving Circle is the first of its kind in the Pacific Northwest. The giving circle will focus on funding an organization or fiscally sponsored project that has an impact in Washington state. Interest areas include multi-ethnic coalition building, leadership development, strengthening and empowering the younger generation (especially women), and cultural work. Five core institutional members include Bill & Melinda Gates Foundation, Empire Health Foundation, Harry and Masie Masto Foundation, Marguerite Casey Foundation, and Northwest Health Foundation (Portland, OR). AAPIP is a national membership organization

dedicated to expanding and mobilizing philanthropic and community resources for underserved AAPI communities to build a more just and equitable society. Through the national organization and 10 regional chapters, AAPIP builds philanthropy within communities, advocates for a more equitable and inclusive philanthropic sector, and develops programs important to members.

Local Public Grants

4Culture Landmarks Capital Program

Supports capital projects that help preserve designated local landmarks all around King County. Design, materials, and labor for rehabilitation projects large and small are all eligible. Applicants may include private owners, businesses, organizations, and local governments. Fundable projects will range from $3,000 to $30,000. 2017 Application Deadline: May 10, 2017.

King County Historic Preservation Grants

Barn Again Historic Barn Preservation Program

Program has up to $500,000 in grant funding for qualified projects. The program goal is to provide funds for the stabilization and rehabilitation of historic barns and outbuildings that are historically associated with the working life of a farm, as well as community gathering places associated with agricultural organizations, such as grange halls. King County's eastern and southern rural areas received grants totaling more than $235,000. Another round of funding will be offered in 2017.

Certified Local Government Grants

Provided through the Department of Archaeology and Historic Preservation to CLG's (including King County). Funds come from the annual federal appropriation to DAHP. Typically used for conduct architectural or archaeological surveys to identify individual properties and districts potentially eligible for the local, state or National Register of Historic Places. May also be used for public education, design guidelines, or studies. Current priorities include surveys and nominations for under-represented communities. Average grant is approximately $7,500, but dependent on program funding levels, may be higher. Applications usually due in April for funding in next federal fiscal year (beginning 10/1). King County did not receive a CLG grant in FY2017.

Flowering tree near Mukai House

H. Cost Estimates

Treatment Tables

The following tables provide a summary view of the treatment recommendations. Each table contains the work recommended for a single phase. Resources are listed in alphabetical order along the left column of each table with planning, minor, and major listed as applicable.

- Work: these are the key words summarizing a more detailed break out of the work in treatment details.
- Cost: these are planning level cost estimate ranges for fundraising and grant applications. These should be refined by contractor proposals and or construction cost estimates as projects move forward.
- Status: indicates whether or not a project is active or complete. If this column is left blank then no work has started on the project.
  - » completed
  - » in progress
  - » ongoing
- Review: this identifies if a Certificate of Appropriateness and review by King County Landmarks Commission would be required in order to undertaken the project. This is for planning purposes only and should be verified with King County Landmarks staff prior to undertaking any work.
- Permit: this indicates if a building permit is required for the work. This is for planning purposes only and should be verified prior to undertaking any work.

PHASE 1 TABLE

Phase 1 2016-2017	Work	Cost	Status	Review	Permit
Agricultural Fields					
Minor	Mowing	Volunteer match	Ongoing	No	No
Agricultural Shed					
Planning	Vehicle removal	Volunteer match		No	No
Minor	Mowing	Volunteer match	Ongoing	No	No
Major	Vehicle removal	Volunteer match		No	No
	Electrical service disconnect	$800 to $1,500		No	Yes
	Materials salvage	Volunteer match		No	No
Barreling Plant					
Planning	As built drawings	$8,225		No	No
	Structural assessment	$4,500 to $6,000		No	No
	Hazardous materials survey	$1,500 to $2,500		No	No
	Electrical inspection	King County contribution		No	No
	Tenant identification	Volunteer match		No	No
	Heating system inspection	$100 to $500		No	No
	King County	Volunteer match		No	No
	Paint Analysis	See house, planning	In progress	No	No
	Technical guidance	$5,000 to $8,000		No	No
Minor	Security	King County contribution		No	No
	Roof patch	$1,000 to $5,000		Yes	Yes
	Heating	Volunteer match		No	No
House					
Planning	Septic system inspection	$300 to $1,000	In progress	No	No
	Official change of use	$5,000 to $7,000		No	Yes
	As-built drawings	$5,825	Completed	No	No
	Structural assessment	$2,000 to $4,000		No	No
	Site planning	$9,200	Completed	No	No
	Hazardous materials survey	$1,500 to $2,500		No	No
	Paint analysis	$7,850	In progress	No	No
	Collections plan	$2,000 to $8,000		No	No
Minor	Fuel tank decommissioning	$500 to $1,200	Completed	No	Yes
	Chimney pointing	$2,500 to $4,000		Yes	No
	Chimney lining	$5,500 to $8,000		Yes	Yes
	Gutters	$100		No	No
	Window stabilization	$20		No	No
	Trim board repair	$20		No	No
	Pest monitoring	Volunteer match		No	No

Phase 1 2016-2017	Work	Cost	Status	Review	Permit
	Collections inventory	Volunteer match		No	No
	Siding repair	$20		No	No
	Northwest entrance, first floor	$1,000 to $1,500		Yes	No
	West entrance, first floor	$1,000 to $2,00		Yes	No
	West entrance, basement	$1,000 to $2,000		Yes	No
	North entrance, basement	$1,000 to $2,000		Yes	No
	East entrance	$3,000 to $6,000		Yes	No
Major	Seismic retrofit	$4,000 to $12,000		Yes	Yes
	Seal foundation cracks	$1,000 to $2,000		Yes	No
	Electrical panel relocation	$8,000 to $14,000		No	Yes
	Electrical system upgrade	$14,000 to $17,000		No	Yes
	Asbestos abatement	$8,000 to $14,000		No	Yes
	Heating system upgrade	$10,000 to $15,000		No	Yes
	Radiator cleaning	$4,500 to $9,000		No	No
	North entrance, first floor	$9,000 to $17,000		Yes	Yes
	Exterior painting	$2,000 to $4,000		Yes	No
	Kitchen cabinets	$500 to $1,000		No	No
Japanese Garden					
Planning	North garden water feasibility	$1,500 to $3,000		Yes	No
	North garden water design	$18,000 to $30,000		Yes	No
Minor	Cherry tree regeneration (107th Ave SW only)	$32,000 to $50,000		Yes	Yes
	Weeding	Volunteer match		No	No
Major	Rewire lamp posts	$5,000 to $10,000		Yes	Yes
	North garden water construction	$150,000 to $250,000		Yes	Yes
Office					
Planning	As built drawings	Included with barreling plant		No	No
	Structural assessment	Included with barreling plant		No	No
	Hazardous materials survey	Included with barreling plant		No	No
	Electrical inspection	King County contribution		No	No
	Tenant identification	Volunteer match		No	No
	Heating system inspection	Included with barreling plant		No	No
	King County	Volunteer match		No	No
	Technical guidance	Included with barreling plant		No	No

Phase 1 2016-2017	Work	Cost	Status	Review	Permit
Site					
Planning	Easement	Volunteer match		No	No
	Comparative example tours	Volunteer match		No	No
	Business plan	Volunteer match		No	No
	Land survey	$3,000	Completed	No	No
	King County Landmarks Commission	Volunteer match		NA	NA
	Civil engineering site plan	$5,000 to $15,000		Yes	No
	Site circulation plan	$1,500 to $3,000		Yes	No
Minor	Interpretive signage	$3,000 to $5,000		Yes	No
	Chain link fence removal	$1,500 to $3,000		Yes	No
Major	Site drainage correction	$20,000 to $60,000		Yes	Yes
	Sidewalk repair	$5,000 to $8,000		Yes	No
House and Grounds					
Planning	Landscape plan (plant removal, stonework repairs, soil preparation.	$1,500 to $3,000		Yes	No
	Comparative landscape tours	Volunteer match		No	No
	Irrigation plan	$1,500 to $3,000		Yes	No
	Planting plan: Cherries, Conifers, Roses, N. Triangle, Kitchen/House Garden (see below), Lawn	$3,000 to $5,000		Yes	No
Minor	Prune perimeter 'Kanzan' Cherry Trees, Conifers, Kitchen/House Garden	Volunteer match		No	No
	Cherry tree regeneration (107th Ave SW only)	$32,000 to $50,000		Yes	Yes
	Kitchen/House garden tree pruning	$300, twice per year	Ongoing	No	No
	Weeding	Volunteer match		No	No
Front Yard					
Planning	Landscape plan (plant removal, pruning, stonework repairs, concrete planters, soil prep.	$1,500 to $3,000		Yes	No
	Irrigation plan	$1,500 to $3,000		Yes	No
	Planting plan for rockery, foundation plantings, concrete planters	$3,000 to $5,000		Yes	No
Major	Rewire lamp posts	$5,000 to $10,000		No	No
North Japanese Garden					
Planning	North garden water feasibility	$1,500 to $3,000		No	No
	North garden water feature design	$18,000 to $30,000		Yes	No
	Landscape plan (plant removal, stonework repairs, soil preparation.	$1,500 to $3,000		Yes	No

Phase 1 2016-2017	Work	Cost	Status	Review	Permit
	Irrigation plan	$1,500 to $3,000		Yes	No
	Planting plan	$3,000 to $5,000		Yes	No
Minor	Weeding	Volunteer match		No	No
Major	North garden water construction	$150,000 to $250,000		Yes	Yes
South Japanese Garden					
Planning	Landscape plan (plant removal, stone-work repairs, soil preparation.	$1,500 to $3,000		Yes	No
	Irrigation plan	$1,500 to $3,000		Yes	No
	Planting plan	$3,000 to $5,000		Yes	No
Minor	Further excavation to determine the extent of pond and stonework	Volunteer match		Yes	No
	Weeding	Volunteer match		No	No
	Skilled pruning of existing Fatsia plant and conifers	Volunteer match		No	No

PHASE 2 TABLE

Phase 2 2018-2019	Work	Cost	Status	Review	Permit
Agricultural Fields					
Planning	Crop identification and soil test	$2,000 to $5,000		No	No
Minor	Field cultivation	Volunteer match		No	No
Barreling Plant					
Planning	Design and construction develop-ment	$89,000 to $205,000		Yes	No
Major	Rehabilitation, scenario 1	$738,425		Yes	Yes
	Rehabilitation, scenario 2	$1,227,925		Yes	Yes
	Rehabilitation, scenario 3	$1,706,875		Yes	Yes
House					
Planning	Basement sheet rock	Volunteer match		No	No
Major	Window restoration	$55,000 to $75,000		Yes	Yes
	Storm windows	$6,200 to $15,500		Yes	No
	Bedroom, southeast	$3,000 to $8,000		No	No
	Bedroom, southwest	$3,000 to $8,000		No	No
	Bathroom	$1,000 to $2,000		No	No
	Living room	$10,000 to $15,000		No	No
	Dining room	$3,000 to $5,000		No	No
	Office	$3,000 to $8,000		No	No
	Parlor	$3,000 to $8,000		No	No

Phase 2 2018-2019	Work	Cost	Status	Review	Permit
	Basement	$8,000 to $15,000		No	No
	Kitchen restoration	$15,000 to $25,000		No	No
	Universal access	$30,000 to $75,000		Yes	Yes
	Attic insulation	$10,000 to $15,000		No	No
House Garden					
Planning	Crop identification	Volunteer match		No	No
Major	Garden cultivation	Volunteer match		No	No
Japanese Garden					
Minor	Weeding and pruning	Volunteer match		No	No
Major	North garden planting	$20,000 to $35,000		Yes	No
Office					
Planning	Design development	$9,000 to $20,000		Yes	No
Major	Rehabilitation	$72,000 to $126,000		Yes	Yes
Site					
Planning	Lighting assessment	$5,000 to $10,000		Yes	No
	Marketing and branding	$8,000 to $20,000		No	No
Minor	Cherry tree regeneration	$30,000 to $70,000		Yes	Yes
Major	Strawberry garden	$5,000 to $10,000		Yes	No
	Parking construction	$75,000 to $200,000		Yes	Yes
Woods					
Planning	Tree and plant identification	Volunteer match		No	No
House and Grounds					
Major	Install remainder of cherry trees	$3,000 to $7,000		Yes	No
	Install conifer trees as determined.	$3,000 to $7,000		Yes	No
	Restore remainder North Triangle Area	$3,000 to $7,000		Yes	No
Kitchen/House Garden					
Planning	Crop identification	Volunteer match		No	No
Major	Garden cultivation	Volunteer match		No	No
Front Yard					
Minor	Ongoing weeding and pruning of rockery plants	Volunteer match		No	No
Major	Reset stone steps up to the lawn, rockery	$1,500 to $3,000		No	No
	Replace or replicate concrete planters.	$500 to $1,000		Yes	No
	Install irrigation and foundation plantings at front	$1,000 to $2,000		Yes	No
	Replant rockery plants	$3,000 to $7,000		No	No

Phase 2 2018-2019	Work	Cost	Status	Review	Permit
	Restore, maintain lawn, including irrigation	$3,000 to $7,000		No	No
	Develop universal access route	$3,000 to $7,000		Yes	Yes
North Japanese Garden					
Major	Repair dry-laid stonework	$1,000 to $2,000		No	No
	Develop universal access route	$3,000 to $7,000		Yes	Yes
South Japanese Garden					
Minor	Weeding and pruning	Volunteer match		No	No

PHASE 3 TABLE

Phase 3 2020-2021	Work	Cost	Status	Review	Permit
House					
Major	House painting	$12,000 to $20,000		Yes	No
	Storm windows	$8,000 to $12,000		Yes	No
Japanese Garden					
Major	South garden	$350,000 to $500,000		Yes	Yes
	North end	$25,000 to $50,000		Yes	No
Site					
Planning	New building design	Determine based on scope			
Major	Shed	Determine as part of design development		Yes	Yes
	Shed or comfort station	Determine as part of design development		Yes	Yes
	Bunkhouse and outdoor stage	Determine as part of design development		Yes	Yes
Woods					
Planning	Trail and interpretation design	$10,000 to $15,000		Yes	No
Major	Debris removal	$5,000 to $10,000		No	No
	Trail and interpretive construction	Determine as part of planning study		Yes	Yes
House and Grounds					
Major	North Triangle: remove non-historic plantings	$2,000 to $3,000		No	No
	Develop universal access paths between the house and office	$3,000 to $7,000		Yes	Yes
South Japanese Garden					
Major	South garden irrigation and planting	$35,000 to $50,000		Yes	No
	Develop walking paths	$3,000 to $7,000		Yes	Yes