



Engineers

Historic O'Keefe Ranch

Part 3 - Capital and Operations Management Plan

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Executive Summary

Building from the Facility Condition Assessment (FCA) and the Heritage Conservation Plan (HCP) (separately reported), RJC Engineers has prepared two Capital and Operations Management Plan scenarios for the City of Vernon. Both scenarios follow a preventive maintenance approach:

Scenario 1 utilizes a predictive maintenance philosophy and follows the recommendations provided in the Facility Condition Assessment while adding costs from additional recommendations within the Heritage Conservation Plan. These recommendations follow a restoration approach by completing programs and projects that attempt to maintain the current level of service to all buildings, resulting in a plan with a combination of capital restoration projects and on-going maintenance. We refer the reader to Section 3.1, Figure 1, for visual representation. The projected 10-year capital cost of following Scenario 1 is \$3,240,000.

Scenario 2 is developed by shifting to condition-based maintenance philosophy or often referred to as a Preservation focus (following ANCE's HCP) and including relevant additional scopes from the HCP. This scenario considers the condition and recommendations of an asset from the Facility Condition Assessment and heritage significance and the importance to the site programming from the HCP to determine if a reduced level of service is acceptable. This plan results in a higher frequency and increase in ongoing maintenance with capital projects remaining where required to address items that impact the life safety or importance to the site programming of an asset. We refer the reader to Section 3.1, Figure 2, for visual representation. The projected 10-year capital cost of following Scenario 2 is \$2,020,000.



1.0 Introduction

The following Capital and Operations Management Plan (COMP) for the Historic O'Keefe Ranch is the final deliverable for the City of Vernon under Read Jones Christoffersen Ltd.'s engagement for the Ranch. The COMP forms the second part of Phase 2 of the overall services. Phase 2 also includes preparation of a Heritage Conservation Plan (HCP) Prepared by Ance Building Services Co. and submitted separately.

The purpose of this capital and operations management plan is to provide a detailed 1-10 year-plan, defining a maintenance, renewal, and improvement program for the site assets. This includes typical maintenance and renewal activities that, if carried out, will prolong the service life of the components of the Historical O'Keefe Ranch.

The COMP is informed by the previously completed Facility Condition Assessment (FCA) and the Statements of Significance (SOS) (project Phase 1) and the Heritage Conservation Plan (HCP), including added recommendations and costs arising from the HCP.

These documents provide information on the current condition, heritage significance and recommendations to conserve the assets of the ranch.

In the development of this report, RJC completed the following work:

- Review available documentation from the City of Vernon and O'Keefe Ranch and Interior Heritage Society.
- Prepare a written report including two COMP scenarios as informed by the FCA, SOS and HCP.

The following appendices are included at the conclusion of this report:

- **Appendix 3-A: Glossary** provides reference typical terms and practices used in creating the plan.
- **Appendix 3-B: Capital and Operations Management Plan Summary** provides a summary of the projects and programs and the changes made between the two scenarios.
- **Appendix 3-C: Capital and Operations Management Plan Scenario 1: Restoration Approach** provides plan for the programs and projects recommended for the restoration approach.
- **Appendix 3-D: Capital and Operations Management Plan Scenario 2: Preservation Approach** provides plan for the programs and projects recommended for the preservation approach.



2.0 Background

A summary of the FCA, SOS and HCP documents can be found in the sections below.

2.1 RJC Engineers: Facility Condition Assessment

Under Phase 1, the Facility Condition Assessment identified the current building and site asset conditions and provided recommendations to restore, rehabilitate and repair the building to be used in a fully operational use. Priorities for each recommendation within the FCA were derived from the risk of occurrence (risk probability) and the consequence of occurrence. These risks were then grouped into recommended timelines for remedial recommendations to be undertaken with related opinions of probable cost. The overall FCA output provided recommendations that maintain the use, and generally align with an approach that **restores or rehabilitates** the capital items.

We refer the reader to the Phase 1 work in the Facility Condition Assessment report previously submitted.

2.2 Ance Building Services Co.: Statement of Significance

A Statement of Significance (SOS) was completed for the O'Keefe Ranch in December 2023 and included with the Phase 1 reporting. By way of summary, we note the following.

The SOS, in its simple, non-technical language, is "a declaration of value that briefly explains what a historic place is and why it is important". Although this is a site with long-established heritage significance, a SOS was not previously undertaken. The SOS captures the many layers of heritage value embedded in the O'Keefe Ranch site, from its Indigenous connections and ongoing meaning which need to be further explored and directly articulated by its Indigenous neighbours, the Nk'map'iqs band (Okanagan Band), through its settlement by the O'Keefe family, its use as a ranch, as a small commercial and transportation depot, the diversity of people who worked and lived here over the decades, its transformation into a historic site by second generation O'Keefe family members and its role in the Okanagan Valley community and cultural tourism sphere today.

2.3 Ance Building Services Co.: Heritage Conservation Plan

The Heritage Conservation Plan (HCP) explains how The City of Vernon will sustain the significance identified in the Statement of Significance (the heritage values and character defining elements) in any new use, alteration, repair or management.



The HCP utilizes a simple thinking process which starts with describing what is there, the condition of each part, what is proposed to happen to the historic place and its components, and the principles by which you will manage it (following the Standards and Guidelines for the Conservation of Historic Places in Canada).

The HCP recommends a practical approach to conservation while heavily relying on **Preservation** for the site, with some buildings considered for **Restoration or Rehabilitation**. For reference, the conservation approaches are:

Preservation: the action or process of protecting, maintaining, and/or stabilizing the existing materials, form, and integrity of an historic place, or of an individual component, while protecting its heritage value.

Restoration: the action or process of accurately revealing, recovering or representing the state of an historic place, or of an individual component, as it appeared at a particular period in its history, while protecting its heritage value.

Rehabilitation: the action or process of making possible a continuing or compatible contemporary use of an historic place, or an individual component, while protecting its heritage value.

When comparing to the FCA it is helpful to understand that a condition assessment primarily considered a restoration and rehabilitation approach in order to retain or regain the current use of the buildings. While the HCP, however, recommends revision to a preservation approach.

We refer the reader to the completed HCP, separately submitted as Part 2 of the current engagement, for further details.

3.0 Capital and Operations Management Plan Methodology

A comprehensive Capital and Operations Management Plan provides information on how to manage the built assets of the Ranch and relies on the following:

- .1 Understanding the current use of an asset, in the case of O'Keefe Ranch, this is the buildings, services and infrastructure.
- .2 Understanding the current condition and prioritized recommendations from the FCA and the impact of altering or changing these recommendations, and in particular considering a changed approach to the level of service, by following a different conservation approach.



- .3 Understanding an asset's heritage importance and importance to site programming as described in the HCP.
- .4 Considering different heritage conservation approaches and implementing appropriate methods.
- .5 Applying these methods to create a functional plan that can be executed by the Owner.

These plans do not include for the operating costs of the Ranch such as staffing levels, salaries, insurance, utilities and other data that are external to the managing of the built assets.

3.1 Capital and Operations Management Plan Scenarios

To plan for the maintenance, renewal and improvement programs for the Ranch a preventative maintenance approach has been considered. Within this approach two scenarios were formed.

These scenarios have been explained further in the sections below. Details of the scenarios and comparison of the scopes is included in Appendix 3-B, with a summary ten year budgeting in Appendix 3-C and 3-D.

3.1.1 Scenario 1 – Restoration Approach

Scenario 1 utilizes a predictive maintenance philosophy and follows the recommendations provided in the Facility Condition Assessment as well as additional recommendations from the Heritage Conservation Plan. These recommendations follow a restoration approach by completing programs and projects that attempt to maintain the current level of service to all buildings. Resulting in a plan with a combination of capital restoration projects and on-going maintenance, as shown in Figure 1.

This provides the City and Ranch with a plan if a predictive maintenance approach is selected. The level of service generally remains unchanged. The purpose of this scenario is to provide a “benchmark” for comparison.

Scenario 1 requires two years of large capital projects of \$550,000 and \$410,000 and a budget of \$2,280,000 for the years 3 to 10. The ten-year total projected cost is \$3,240,000.

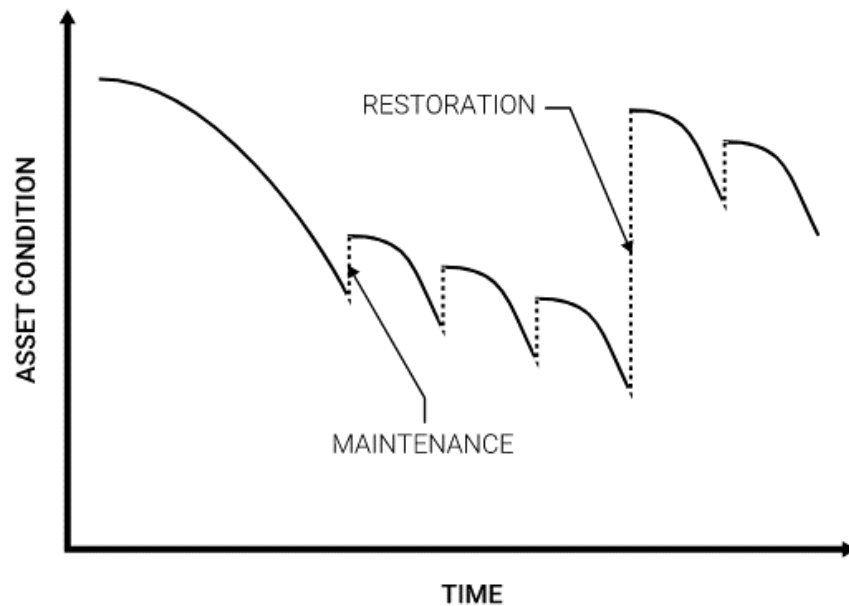


Figure 1: Restoration Approach

3.1.2 Scenario 2– Preservation Approach

Scenario 2 follows a condition-based maintenance philosophy or often referred to as a Preservation focus (following ANCE's HCP). This scenario considers the condition and recommendations of an asset from the Facility Condition Assessment and heritage significance and the importance to the site programming from the HCP to determine if a reduced level of service is acceptable. This plan results in a higher frequency and an increase in ongoing maintenance with capital projects remaining where required to address items that impact the life safety or importance to the site programming of an asset, as shown in Figure 2.

Examples of increased ongoing maintenance and where larger restoration projects have been altered or removed if the reduction in use or heritage importance of a building was deemed acceptable are as follows:

- Item 3 – Roof Replacement Program was removed from the plan. This was accommodated by increasing the Roof Maintenance Program (Item 1).
- Item 12 – Greenhow Museum Stair Replacement was retained in both Scenarios as it was deemed to be a life safety item and the use of the building has high importance to the site programming.

A full summary of these changes can be found in Appendix 3-B.

A major consideration of this approach is the reduced use of an asset if the maintenance is not followed. This reduction in asset use could range from limiting occupancy to complete loss of an asset. Under this scenario the activities in each year include:

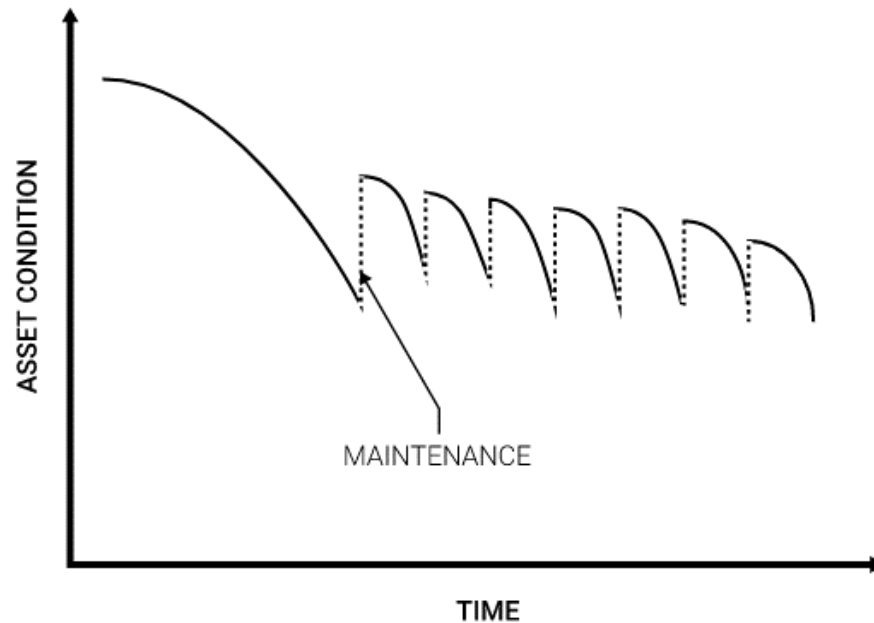


Figure 2: Preservation Approach

Scenario 2 requires the following budget:

- Year 1 – complete the recommended assessments and further evaluation activities, totalling a budget of \$90,000.
- Year 2 – undertake a capital renewal program with a budget of \$700,000, primarily focusing on Projects arising, but also acting upon the Programs. The basis is the recommended Projects arising from the FCA and considering the HCP approaches, for example the Greenhow Museum stairs are repaired/replaced and the bridge decommissioned.
- Years 3 through 10 follow a capital maintenance approach, primarily focused on the ongoing maintenance, with a budget of \$1,230,000.

The 10-year projected cost for Scenario 2 is \$2,020,000. By altering recommended timelines for capital projects in this approach there is a potential for an increased backlog of capital renewal work that may need to be undertaken.

The details for Scenarios 1 and 2 are included in Appendix 3-C and 3-D of this part of the overall reporting.

3.1.3 Additional Scenarios

Additional scenarios can be developed. For example, if the City wishes to revise the approach for a particular building from preservation to rehabilitation, the action items can be updated and a new scenario presented. Alternately, the level of service could be further decreased, resulting in an overall budget decrease and an increase in the rate at which deferred maintenance accumulates.

4.0 Closing

We trust the information contained within this report satisfies your current requirements. Should you have any comments, questions or concerns, please contact the undersigned. We remain available to review and discuss findings and future action.

Yours truly,

READ JONES CHRISTOFFERSEN LTD.
EGBC Permit to Practice No. 1002503

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Appendix 3-A – Glossary

Appendix 3-B – Summary of Capital and Operations Management Plan Scenarios

Appendix 3-C – Capital and Operations Management Plan Scenario 1: Restoration Approach

Appendix 3-D – Capital and Operations Management Plan Scenario 2: Preservation Approach



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Appendix 3-A

Glossary

Glossary of Terms

Maintenance is an activity or series of activities intended to arrest or mitigate deterioration and extend the useful service life of building components. Maintenance is generally considered to include routine or repeating activities of small scope, which involve no major alterations to existing components.

Preservation: the action or process of protecting, maintaining, and/or stabilizing the existing materials, form, and integrity of an historic place, or of an individual component, while protecting its heritage value.

Restoration: the action or process of accurately revealing, recovering or representing the state of an historic place, or of an individual component, as it appeared at a particular period in its history, while protecting its heritage value.

Rehabilitation: the action or process of making possible a continuing or compatible contemporary use of an historic place, or an individual component, while protecting its heritage value.¹

Why is Maintenance Required?

The main focus of routine building maintenance is to preserve the useful service life of the building components and to reduce the possibility of damage to elements such as interior drywall finishes. The review of building components coupled with the scheduled maintenance activities affords the opportunity to detect potential problems with the building components at an early stage, or possibly detect a potential problem with a related building system or component. Failure to adhere to this maintenance plan and the schedules defined here could result in deterioration and damage.

All building materials are subject to deterioration as a result of various environmental factors including rain, sunlight, pollution, mechanical damage, corrosive chemicals, fatigue, and biological agents. The rate of this deterioration is subject to the properties of the materials and the degree of exposure to any detrimental elements or forces.

Record Keeping

Proper record keeping that catalogues when maintenance occurs and what actions were undertaken or recommended is imperative. Maintenance Staff at the Ranch should be made aware of the building components and be familiar with the potential problems and maintenance requirements.

¹ Definitions provided by ANCE in their reporting and repeated here for reader reference.



Maintenance Program Initiation and Budgeting

The overall scenarios presented in **Appendix 3-C and 3-D** focus on programs and projects required to maintain an asset, and attempts to identify the timing and nature of activity over the next 10 years. A budget must be determined and set aside for maintenance of the Ranch. Regular reassessment of yearly expenditures should be completed to develop an effective, cost efficient program.

Monies allocated to the plan should not be confused with the additional requirement to establish a renewal and operating plan and appropriate budget. Renewal and operating costs refer to the larger sum of money needed for the complete upgrades of a particular building material or component or regular operating costs of the Ranch. The opinions of probable cost presented in Appendix 3-C and 3-D of this report provide a framework only and are in 2024 dollars. More accurate forecasting of the anticipated costs can be established with the addition of the Ranch's operating costs and an appropriate factor for inflation included.

Opinions of Probable Cost

Opinions of Probable Costs (OPC) for the recommendations are presented by RJC to provide an expectation as to the magnitude of costs required to complete the recommended work. The opinions provided are based on conceptual repair methods, recently obtained broad unit rates and past experience with similar projects. A detailed estimate of costs has not been provided, as it would require the preparation of plans, details, specifications, and schedules to achieve a quantified summary of estimated costs. It is assumed in the creation of these costs that work will be completed by a contractor.

Opinions of Probable Costs are based on RJC's review of the present condition of the building. Deferral of the work could result in increased repair costs. Please note that the cost of remediation could vary greatly depending upon the materials chosen and any deterioration uncovered during the remediation work.

Contract administration range depending on the scope and can run from 10% through 20%, typically smaller projects are found to have a higher percentage of costs. For the purposes of the provided OPCs we have included soft costs to be 18% of construction costs.

When budgeting, soft costs, including Society costs, engineering fees, costs for management, permits, and testing should also be added. Soft costs range depending on the scope and can run from 15% through 25%, typically smaller projects are found to have a higher percentage of soft costs, depending on the project details and requirements. For the purposes of the provided OPCs we have included soft costs to be 25% of construction costs.

An Owner contingency of 20% is included with each Opinion of Probable Cost. A contingency of at least this amount should be included in all construction budgets to allow for variation in estimated unit prices due to



competitive bidding, repair work resulting from additional deterioration, and additional work required to repair any damage caused by or discovered during construction.

Due to the known potential of hazardous materials we have included a Hazardous Material Contingency of 15% of the construction costs. This contingency does not include for the testing of materials but rather the potential increase in effort to abatement and contain work areas with hazardous materials.

Selecting a Contractor

Undertaking general maintenance and the specific maintenance requirements of the building is not simple. These recommendations have considered using a general contractor. Considerations can be made to use alternate workforces such as post-secondary school programs, volunteers etc. As well, the City and Ranch may want to consider creating a multi-year standing offer with a Contractor to complete the maintenance. Heritage work should be completed by skilled professionals as described in the HCP.



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Appendix 3-B

Summary of Capital and Operations Management Plan Scenarios



Plans and Programs

The basis of the scenarios was formed from the recommended programs and projects in the FCA, below is a summary of those recommendations and commentary where programs have been adjusted to align with preservation scenario.

Prioritized Recommendation Plan

The recommendations have followed the prioritized plan of programs and projects based on the risk assessment matrix presented in Section 3.0 of the previously issued FCA. Recommended work has been grouped into Programs and Projects based on the following criteria:

Programs: work is to be completed at multiple buildings in phases over a period of several years.

Projects: work is to be completed at one building or at multiple buildings and is not phased over several years.

1.1.1 High Priority Programs

Table 1, identifies programs to address conditions considered to be of moderate priority and should begin within the next year.

TABLE 1: HIGH PRIORITY PROGRAMS				
Item	Location	Program Title	Scenario 1: Restoration Approach	Scenario 2: Preservation Approach
1	All Building Roofs	Roof Maintenance Program	Clean eavestroughs, remove vegetation and debris from roofs bi-annually (fall/spring). Replace loose or missing shingles as required. Repair and repaint fascia as required. Immediate repairs to active leaking at Stagecoach Depot. Cut back overhanging tree and remove debris from Pioneer Cabin roof. Re-Detail Log House Lean-To roof edge with mitered edges and add signage and post to redirect pedestrians. Investigate chimney penetration at St. Anne’s Church to confirm source of leaking and repair flashing. Review and repair leaks at Pump House roof.	To accommodate the recommended preservation approach in addition to the work that is recommended in the FCA the program budget for the roof maintenance program has been increased. In the short term we have adjusted the budget for the roofing to start in 2025. The roof maintenance and repair buildings consider the roof replacement prioritization list included in Appendix G of the FCA. Repairs to the roofs should follow the guidelines for roofs as identified in the HCP.
2	All Buildings and Small Buildings	Landscaping, Small Building Maintenance, and Monitoring Budget Program	Landscape to provide 4" clearance around buildings. Repair or replace small buildings as required. See Section 5.1 of the FCA for immediate projects. Continue to monitor conditions indicated in Section 5.1 of the FCA for changes. Monitoring can be completed internally. Notify a professional if conditions change. At a minimum the following items should be included in the annual monitoring program. <ul style="list-style-type: none">Gazebo checking posts and cracked beam.Cowboy Bunkhouse spalled foundation wall.Both Windmills buried posts.Log House active leaking at the interior of the building.Red Shed cracking in the extended concrete slab-on-grade, foundation, and building for movement.Water Cisterns cracking in walls. <i>Note. This program is considered high priority based on the recommended timeline not the severity of the condition.</i>	The landscaping budget has not changed from the recommendations included in the FCA. All work should follow the Conservation Treatments Table included in the HCP.

1.1.2 Moderate Priority Programs

Table 2, on the next page, identifies programs address conditions considered to be of moderate priority and should begin with two to five years.

TABLE 2: MODERATE PRIORITY PROGRAMS				
Item	Location	Program Title	Scenario 1: Restoration Approach	Scenario 2: Preservation Approach
3	All Building Roofs	Roof Replacement Program	Complete a roof replacement program starting in the next 5 years. The program is recommended to replace the roofs of four buildings a year for the next nine years. The first roofs considered for replacement should include the Stagecoach Depot and Chinese Cook’s House. For a full prioritization of roof replacements see Appendix G of the FCA.	<p>To follow the guidelines for roofs outlined in the HCP, RJC has shifted the roof replacement program outside of the 10-year horizon.</p> <p>To address this approach, the maintenance budget (Item 1) has been increased.</p> <p>RJC notes that by delaying the replacement does not mean that these costs will not occur, but by implementing a more robust maintenance and preservation program to the roofs the service life of these roofs can be extended.</p>
4	All Sanitary and Domestic Distribution Piping and Supply Ducts	Mechanical System Monitoring and Assessment Program	See Section 2.0 in Appendix E of the FCA for detail. Inspect and clean sanitary pipes. Look for pinhole leaks in domestic water distribution and sanitary waste piping. Inspect and clean supply ducts. This program is recommended to be completed every 5 years.	This budget has not changed from the recommendations included in the FCA.
5	All Windows and Doors	Window and Door Program	Repair and paint window and door trims, replace glazing seals and broken glass, repair or replace door doors. The program is recommended to repair or replace windows in three buildings a year for the next seven years.	<p>This budget has not changed from the recommendations included in the FCA.</p> <p>All work should follow the Conservation Treatments Table included in the HCP.</p>
6	All Building Cladding	Cladding Maintenance and Painting Program	Replace damaged cladding trims and loose or missing cladding as required. Clean and paint cladding as required. Paint at risk cladding to extend service life. This program is recommended to replace 5% of cladding in the next 30 years. Provide additional support or connection to the structure of the building at the top of the Chinese Cook’s House stairs. Repair stained sheathing at Red Shed and Pump House.	<p>This budget has not changed from the recommendations included in the FCA.</p> <p>All work should follow the Conservation Treatments Table included in the HCP.</p>

1.1.3 Lesser Priority Programs

Identifies programs address conditions considered to be of lesser priority and should begin with six to ten years.

TABLE 3: MODERATE PRIORITY PROGRAMS				
Item	Location	Program Title	Scenario 1: Restoration Approach	Scenario 2: Preservation Approach
7	All Buildings	Assessment Budget	Allowance for building assessments as required. This program is recommended for assessment of 2-4 buildings every five years.	The assessment budget has been increased to include for annual reviews or the plan. The intent of these assessments is to review the current condition of the Ranch and determine that years prioritized work.
8	All Fences	Fence Maintenance Program	Repair fencing in the spring with like materials as required.	Considering the Heritage Importance of the fencing and method of preservation, this program has been reduced and extended to allow for a more ongoing repair method.
9	All Paved Surfaces	Road Maintenance Program	Repair potholes and slope for drainage as required.	Considering the Heritage Importance of the roads and paths and method of preservation, this program has been reduced and extended to allow for a more ongoing repair method.
10	All Water Lines	Irrigation and Water Line Replacement Program	Replace damaged lines and garden hydrants in the spring as required.	As the irrigation and waterlines was not identified in the HCP, this program has been reduced and extended to allow for a more ongoing repair approach.

1.1.4 High Priority Projects

Table 4 identifies projects address conditions considered to be a high priority and should be completed within the next year.

TABLE 4: HIGH PRIORITY PROJECTS				
Item	Location	Program Title	Scenario 1: Restoration Approach	Scenario 2: Preservation Approach
11	Visitor Center, Greenhow Museum & O’Keefe House	Hazardous Materials Assessment	Retain environmental engineer report for review of organic growth in Visitor Center and Greenhow Museum basements and animal dropping and vermiculite insulation in O’Keefe House attic.	To prepare for larger capital project year. This assessment has remained as recommended in the FCA.
12	Greenhow Museum	Stair Replacement and Repair	Replace basement and second floor emergency exit stairs.	This work has been moved to year 2 to align with the larger capital project recommendation.
13	Meat & Dairy Building	Additional Structural Support	Add permanent support at Dairy Building, Garage (B3 in Appendix C of the FCA). Complete structural review and design to address as-found conditions. Add blocking at cut joists at Meat Building.	Following the recommendations of the HCP. The repair project has been altered to provide a reduced use for the building.
14	Meat & Dairy Building	Wall and Floor Repairs	Temporarily support and repair North and East wall in Dairy Building (B1 in Appendix C of the FCA) and rotted floor structure in Meat Building (B2 in Appendix C of the FCA). Landscape to expose structure. Remove and reinstate cladding at North wall. Install vents over openings at North wall. Patch concrete steps to Dairy Building front entrance.	Following the recommendations of the HCP. The repair project has been altered to provide a reduced use for the building.
15	Blacksmith Shop	Forge Ventilation System Replacement	See section 2.0 of Appendix E of the FCA for detail. Systems should be replaced, and appropriate thimbles are needed for the penetrations through the roof.	Following the recommendations of the HCP. The repair project has been removed to change the existing use to reduce the repair recommendations. Minor repairs have been captured in the roof maintenance program budget (Item 1).
16	O’Keefe House & Blacksmith Shop	Chimney Repairs	Provide additional support to leaning chimney at O’Keefe House. Replace spalled bricks and repoint mortar. Provide double wall flashing at combustible roof at Blacksmith Shop.	This work has been moved to year 2 to align with the larger capital project recommendation.
17	Hay Shed	Concrete Repair	Remove deteriorated concrete, clean rebar, replace any reinforcement with significant cross-sectional area loss, and repair concrete.	Following the recommendations of the HCP. The repair project has been altered to provide a reduced use for the building.
18	Decommissioned Vehicle Bridge & Log Foot Bridge	Bridge Removal and Replacement	Retain environmental engineer report for environmental impact of bridges removal. Remove and dispose of bridges. Cost to install a new bridge has not been carried.	This work has been moved to year 2 to align with the larger capital project recommendation.
19	O’Keefe House	Geotechnical Report	Retain geotechnical engineer report for review of retaining wall.	To prepare for larger capital project year. This assessment has remained as recommended in the FCA.
20	Visitor Center	Carpentry Repairs	Temporarily support roof structure, remove rotted wood from post and add new pedestal. Remove rotted truss trails and provide flashing.	This work has been moved to year 2 to align with the larger capital project recommendation.
21	Visitor Center	Basement Repairs	Clean basement walls and extend rainwater leaders. If condition persists, add drainage and waterproofing.	This work has been moved to year 2 to align with the larger capital project recommendation.

1.1.5 Moderate Priority Projects

Table 5 identifies projects address conditions considered to be at moderate risk and should be completed within two to five years.

TABLE 5: MODERATE PRIORITY PROJECTS				
Item	Location	Program Title	Scenario 1: Restoration Approach	Scenario 2: Preservation Approach
22	O’Keefe House & Schubert Barn	Structural Assessment	Retain structural engineer report for review of O’Keefe House roof structure and deflecting ceilings in bathroom and small dining room, Log Barn hay loft, and Schubert Barn structural system.	To prepare for larger capital project year. This assessment has been brought forward to year one.
23	Corral	Grandstand Removal	Remove grandstand platform. Cost to install a new grandstand has been carried as an optional cost in addition to the removal.	Following the recommendations of the HCP. The repair project has been altered to reduce access to the grandstands. Future removal may need to be considered.
24	Various	New Fire Rated Rooms	See section 2.0 of Appendix E of the FCA for detail. Construct new fire rated rooms to house furnaces and water heaters as recommended.	This budget has not changed from the recommendations included in the FCA.
25	O’Keefe House, Log Barn, Carriage Shed & Schubert House	Foundation Repairs	Provide support and repair foundation columns at O’Keefe House. Replace spalled bricks and repoint mortar joints. Provide fill below Log Barn East Lean-To concrete slab. Provide fill where Carriage Shed foundation is undermined. Repair Schubert House pony wall where tilted and repair CMU blocks that are damaged.	This budget has not changed from the recommendations included in the FCA.
26	Various Locations	Miscellaneous Electrical Repairs	See Appendix F of the FCA for detail. Remove old meter outside of Stagecoach Depot. Replace disconnect switches in Meat and Dairy Building and SPPC Display #1. Clean up wiring in O’Keefe House and Schubert House.	This budget has not changed from the recommendations included in the FCA.
27	Schubert House & Log House	Chimney Repairs	Replace spalled bricks and repoint mortar joints where required.	This budget has not changed from the recommendations included in the FCA.
28	O’Keefe House	Water Management	Repair CMU basement wall and add extend rainwater leaders. If condition persists, add drainage away from the area. Remove rotted portions of porch and repair. Add new scuppers.	This budget has not changed from the recommendations included in the FCA.
29	Visitor Center	Cooling Unit Replacement	See section 2.0 of Appendix E of the FCA for detail. Replace cooling unit in the near future.	This budget has not changed from the recommendations included in the FCA.
30	Greenhow Museum	Hot Water Heater Replacement	See section 2.0 of Appendix E of the FCA for detail. Remove and dispose of old heater and install new.	This budget has not changed from the recommendations included in the FCA.
31	Stagecoach Depot	Hot Water Heater Replacement	See section 2.0 of Appendix E of the FCA for detail. Remove and dispose of old heater and install new	This budget has not changed from the recommendations included in the FCA.
32	O’Keefe House	Condensate Pump Replacement	See section 2.0 of Appendix E of the FCA for detail. Remove and dispose of old condensate pump and install new.	This budget has not changed from the recommendations included in the FCA.

TABLE 5: MODERATE PRIORITY PROJECTS				
33	Carriage Shed	Hot Water Heater Replacement	See section 2.0 of Appendix E of the FCA for detail. Remove and dispose of old heater and install new	This budget has not changed from the recommendations included in the FCA.
34	SPPC Clubhouse	Furnace Upgrade	See section 2.0 of Appendix E of the FCA for detail. System should be upgraded soon.	This budget has not changed from the recommendations included in the FCA.
35	SPPC Clubhouse	Hot Water Heater Replacement	See section 2.0 of Appendix E of the FCA for detail. Remove and dispose of old heater and install new	This budget has not changed from the recommendations included in the FCA.
36	Various	Hot Water Upgrade	See section 2.0 of Appendix E of the FCA for detail. Upgrade systems to provide hot water at sinks.	This budget has not changed from the recommendations included in the FCA.
37	Various	Miscellaneous Mechanical Repairs	See section 2.0 of Appendix E of the FCA for detail. Configure natural gas piping in Museum and SPPC Clubhouse. Provide drain pans for hot water heaters. Replace galvanized piping at Pump House. Upgrade piping insulation.	This budget has not changed from the recommendations included in the FCA.

1.1.6 Lesser Priority Projects

Table 6, on the next page, identifies projects address conditions considered to be lesser priority and should be completed within six to ten years.

TABLE 6: LESSER PRIORITY PROJECTS				
Item	Location	Program Title	Scenario 1: Restoration Approach	Scenario 2: Preservation Approach
38	Implement Sheds, SPPC Displays and SPPC Clubhouse	Minor Structural Repairs	Expose base of lean-to wood posts to concrete footing were buried. Remove rotted wood and add new pedestals at these locations. Provide new strap anchors at SPPC Display #2 and Tack Shed. Clean saddle connections at base of posts in Implement Sheds.	This project has been removed. To implement this recommendation the funding is expected to come from Item 6. Reviews should be completed of identified structural concerns to determine if changes occur.
39	Visitor Center, Caretaker’s House, & SPPC Clubhouse	IGU Replacement	Replace IGUs as required.	This project has been removed. To implement this recommendation the funding is expected to come from Item 5. Potential failure may result in user comfort concerns.
40	O’Keefe House & Schubert House	Plaster and Lath Repair or Replacement	Option 1: Repair existing plaster and lath. Heat buildings in the winter to extend service life. Option 2: Replace damaged plaster and lath with drywall (carried in OPC).	This has been changed to a maintenance program with an annual budget to review and repair areas as outlined in the HCP.
41	O’Keefe House	Air Handling Unit Repair	See section 2.0 of Appendix E of the FCA for detail. Replace cooling coil in air handling unit.	This budget has not changed from the recommendations included in the FCA.
42	St. Anne’s Church	Heating Upgrade	See section 2.0 of Appendix E of the FCA for detail. Update heating to sealed combustion condensing unit.	This has been removed as it was identified in the HCP as not requiring heat. Winter heating has been included for in HCP.5.

1.1.7 Projects Identified in the HCP

7, on the next page, identifies projects that were identified in the HCP and not the FCA.

TABLE 7: PROJECTS IDENTIFIED IN THE HCP				
Item	Location	Program Title	Scenario 1: Restoration Approach	Scenario 2: Preservation Approach
HCP.1	Greenhow Museum	Artefact Assessment	N/A	<ul style="list-style-type: none">▪ Work with a museums professional to assess the archives, the artefacts collection, their condition and their storage situation▪ Follow museum professional guidance to sort, curate, dilute and if necessary deaccession a portion of the items▪ As part of the above professional assessment, determine whether it is important for the O’Keefe Ranch archives to be accessed by researchers and located on site given the low volume of requests and the fact that the VMA also holds an O’Keefe Ranch collection?▪ Discuss whether the position of curator is needed for effective development of museum exhibits or can the VMA staff support ranch staff with exhibit development if and where necessary?
HCP.2	Various	Machinery and Exhibits Artefact Assessment	N/A	<ul style="list-style-type: none">▪ It is likely that this collection has grown too large and unfocused to effectively store, maintain and interpret. Consider assessing and reducing the collection to the most important, representative pieces that truly enhance the visitor experience, and that the ranch can also maintain, and develop fresh, effective, self-guided interpretation for them.▪ Offer scheduled guided tour of these machines as a new program.
HCP.3	Various	Arborist Assessment	N/A	<ul style="list-style-type: none">▪ Commission an arborist assessment of the Ponderosa Pines on site as well as conservation guidelines for their preservation▪ Prepare a maintenance / management plan to support the ongoing care of character-defining elements in the landscape.▪ Protect and maintain vegetation by using non-destructive methods in daily, seasonal and cyclical maintenance tasks.▪ Ensure that site use changes do no compromise the health of character-defining vegetation



TABLE 7: PROJECTS IDENTIFIED IN THE HCP				
Item	Location	Program Title	Scenario 1: Restoration Approach	Scenario 2: Preservation Approach
HCP.4	1966 Provincial Stop of Interest Sign	Signs and Interpretation	N/A	<ul style="list-style-type: none">▪ This iconic sign is part of a larger ‘stops of interest’ provincial program that today seems outdated and many of the signs contain inappropriate text. Explore the BC Stops of Interest program and add it to the sites interpretive program and guided tours. This sign offers opportunities to make connections to other sites and explore the damage and lesson of past narratives▪ https://www2.gov.bc.ca/gov/content/transportation/driving-and-cycling/traveller-information/stop-of-interest▪ Monitor the log post holding up the sign for deterioration and replace in-kind when necessary
HCP.5	Various	Operational Heating at Finished Buildings		<ul style="list-style-type: none">▪ Provide minimum 7 Degrees Celsius temporary heating at buildings with interior finishes (e.g. Schubert House, Carriage Shed, etc.)



Engineers

Appendix 3-C

Capital and Operations Management Plan Scenario 1: Restoration
Approach



Scenario 1: Restoration Approach				Maintenance and Renewal Expenditures									
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Reference #	Location	Title	Description	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Programs													
1	Various	Roof Maintenance Program	Roof maintenance and cleaning (gutters, patches, etc).	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
2	Various	Landscaping, Small Building Maintenance, and Monitoring Program	Landscape to provide 4" clearance around buildings. Repair or replace small buildings as required. Monitor the indicated conditions for changes.	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
3	Various	Roof Replacement Program	Replace roofs.			\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00
4	Various	Mechanical System Monitoring and Inspection Program	Inspect and clean sanitary pipes Monitor piping for pin holes and leaks Inspect supply ducts internally		\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00
5	Various	Window and Door Program	Repair and paint window and door trims, repair glazing.		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
6	Various	Cladding Maintenance and Painting Program	Repair and replace cladding and trims Clean and pain cladding trims		\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
7	Various	Assessment Budgets	Retain Building Inspector Report as required.						\$ 8,000.00				
8	Various	Fencing Maintenance Program	Repair and paint fences.						\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
9	Various	Road Maintenance Program	Repair potholes and slope for drainage as required.						\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
10	Various	Irrigation and Water Line Replacement Program	Replace water lines and garden hydrants.							\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00
Projects													
11	Visitor Center, Greenhow Museum, O'Keefe House	Hazardous Materials Assessment	Retain hazardous materials report for organic growth at base of basement wall and pipes. Retain hazardous materials report for animal droppings and vermiculite insulation. Retain hazardous materials report for organic growth.	\$ 10,000.00									
12	Greenhow Museum	Stair Replacement and Repair	Replace basement and emergency exit stairs. Repair second floor stairs.	\$ 25,000.00									
13	Meat & Dairy	Additional Structural Support	Add support at Dairy and Garage. Add blocking at cut joists. Ensure support is close enough as to ensure that South masonry wall is not load bearing.	\$ 7,000.00									
14	Meat & Dairy	Wall and Floor Repairs	Support and repair north and east walls. Remove and reinstate cladding. Landscape to expose structure. Install vents over openings. Patch repair concrete steps to Dairy building.	\$ 20,000.00									
15	Blacksmith Shop	Replace forge ventilation systems		\$ 18,000.00									
16	O'Keefe House, Blacksmith Shop	Chimney Repairs	Provide additional support to leaning chimney. Replace spalled bricks. Provide double wall flue flashing at combustile roof.	\$ 5,000.00									
17	Hay Shed	Concrete Repair	Clean reinforcement and repair concrete.	\$ 25,000.00									
18	Decommissioned Foot Bridge and Log Foot Bridge	Bridge Removal and Replacement	Environemntal Impact Report Remove and Dispose of bridges	\$ 125,000.00									
19	O'Keefe House	Geotechnical Report	Retain geotechnical report for review of wall.	\$ 8,000.00									
20	Visitor Center	Carpentry Repairs	Remove rotted truss tails and provide flashing Remove rotted wood from post and add pedestal	\$ 8,000.00									
21	Visitor Center	Drainage Replacement	Add drainage and extend RWL. Address cooler room Clean walls	\$ 25,000.00									
22	O'Keefe House, Log Barn, Schubert Barn	Structural Assessment	Retain structural engineer report on roof and deflecting ceilings at O'Keefe House Retain structural engineer report for Schubert Barn Retain structural engineer report for Log Barn loft		\$ 10,000.00								
23	Corral	Grandstand Remove and Replacement	Remove grandstand and replace with new.		\$ 10,000.00								
24	Various	Fire Rated Rooms	Built fire rated rooms for water heaters, furnaces, etc.		\$ 60,000.00								
25	O'Keefe Hous,e Log Barn Lean-To, Carriage Shed, Schubert House	Foundation Repair	Provide fill where undermined Repair wood pony wall where tilted and repair CMU blocks that are damaged Provide support and repair foundation columns Add fill to support concrete slab		\$ 25,000.00								
26	Various	Misc. Electrical Repairs	Replace disconnect switches at Meat and Dair and SPPC #1 Replace ITE panel at pump house Remove old meter at Stagecoach Depot Clean up wiring at O'Keefe House and Schubert House		\$ 9,000.00								
27	Log House, Schubert House	Chimney Repairs	Replace spalled brick Repoint mortar joints		\$ 5,000.00								
28	O'Keefe House	Water Management	Clean walls and extend gutters. If conditions persist add drainage. Remove rotted wood at proch and patch repair. Add scuppers		\$ 5,000.00								
29	Visitor Center	Cooling Unit Replacement	Replace Cooling unit and cooling fan coil		\$ 14,000.00								
30	Museum	Hot Water Heater Replacement	Remove and dispose of old heater and install new.		\$ 6,000.00								
31	Stagecoach Depot	Hot Water Heater Replacement	Remove and dispose of old heater and install new.		\$ 6,000.00								
32	O'Keefe House	Condensate Pump Replacement	Remove and dispose of old heater and install new.		\$ 2,000.00								
33	Carriage Shed	Hot Water Heater Replacement	Remove and dispose of old heater and install new.		\$ 3,000.00								
34	SPPC Clubhouse	Furnace Upgrade	Upgrade to new furnace		\$ 13,000.00								
35	SPPC Clubhouse	Hot Water Heater Replacement	Remove and dispose of old heater and install new.		\$ 6,000.00								
36	Various	Hot Water Upgrade	Upgrade water systems to have hot water at sinks		\$ 10,000.00								
37	Various	Misc. Mechanical Repairs	Configure natural gas piping in Museum and SPPC Clubhouse Provide drain pan for water heaters Replace galvanized piping at Pumphouse Upgrade piping insulation		\$ 8,000.00								



Scenario 1: Restoration Approach				Maintenance and Renewal Expenditures									
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Reference #	Location	Title	Description	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Programs													
38	Implement Sheds, SPPC Displays, SPPC Clubhouse	IGU Replacement	Replace IGUs as required.						\$ 6,000.00				
39	Visitor Center, Caretaker's House, SPPC Clubhouse	IGU Replacement	Replace IGUs as required.						\$ 50,000.00				
40	O'Keefe House, Schubert House	Plaster and Lath Repair or Replacement	Repair plaster and lath or replace with drywall.						\$ 14,000.00				
41	O'Keefe House	AHU Repair	Replace cooling coil in unit						\$ 6,000.00				
42	St. Anne's Church	Heating Upgrade	Update to sealed combustion condensing unit						\$ 13,000.00				
HCP.1	Greenhow Museum	Geenhow Museum Artefact Review	Review artefacts to determine if inventory can be reduced	\$ 5,000.00									
HCP.2	Various	Machinery and Exhibits Artefact Assessment	Review artefacts to determine if inventory can be reduced	\$ 5,000.00									
HCP.3	Various	Arborist Assessment	Review and maintain vegetation	\$ 3,000.00									
HCP.4	1966 Provincial Stop of Interest Sign	Signs and Interpretation	Update signage for interpretation			\$ 5,000.00			\$ 5,000.00			\$ 5,000.00	
HCP.5	Various	Operational Heating at Finished Buildings	Provide minimum 7 degrees celsius heating during winter months of un-used buildings.	\$ 6,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
Subtotal				\$ 310,000.00	\$ 230,000.00	\$ 113,000.00	\$ 108,000.00	\$ 108,000.00	\$ 235,000.00	\$ 173,000.00	\$ 173,000.00	\$ 178,000.00	\$ 173,000.00
Contract Administration (18%)				\$ 55,800.00	\$ 41,400.00	\$ 20,340.00	\$ 19,440.00	\$ 19,440.00	\$ 42,300.00	\$ 31,140.00	\$ 31,140.00	\$ 32,040.00	\$ 31,140.00
Soft Costs (25%)				\$ 77,500.00	\$ 57,500.00	\$ 28,250.00	\$ 27,000.00	\$ 27,000.00	\$ 58,750.00	\$ 43,250.00	\$ 43,250.00	\$ 44,500.00	\$ 43,250.00
Owner Contingencies (20%)				\$ 62,000.00	\$ 46,000.00	\$ 22,600.00	\$ 21,600.00	\$ 21,600.00	\$ 47,000.00	\$ 34,600.00	\$ 34,600.00	\$ 35,600.00	\$ 34,600.00
Hazardous Materials Contingency (15%)				\$ 46,500.00	\$ 34,500.00	\$ 16,950.00	\$ 16,200.00	\$ 16,200.00	\$ 35,250.00	\$ 25,950.00	\$ 25,950.00	\$ 26,700.00	\$ 25,950.00
Total				\$ 551,800.00	\$ 409,400.00	\$ 201,140.00	\$ 192,240.00	\$ 192,240.00	\$ 418,300.00	\$ 307,940.00	\$ 307,940.00	\$ 316,840.00	\$ 307,940.00
Rounded Total				\$ 550,000.00	\$ 410,000.00	\$ 210,000.00	\$ 200,000.00	\$ 200,000.00	\$ 420,000.00	\$ 310,000.00	\$ 310,000.00	\$ 320,000.00	\$ 310,000.00



Engineers

Appendix 3-D

Capital and Operations Management Plan Scenario 2 Preservation
Approach

Scenario 2: Preservation Approach				Maintenance and Renewal Expenditures									
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Reference #	Location	Title	Description	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Programs													
1	Various	Roof Maintenance Program	Roof maintenance and cleaning (gutters, patches, etc).		\$ 40,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
2	Various	Landscaping, Small Building Maintenance, and Monitoring Program	Landscape to provide 4" clearance around buildings. Repair or replace small buildings as required. Monitor the indicated conditions for changes.	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
3	Various	Roof Replacement Program	Replace roofs.										
4	Various	Mechanical System Monitoring and Inspection Program	Inspect and clean sanitary pipes Monitor piping for pin holes and leaks Inspect supply ducts internally		\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
5	Various	Window and Door Program	Repair and paint window and door trims, repair glazing.		\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
6	Various	Cladding Maintenance and Painting Program	Repair and replace cladding and trims Clean and pain cladding trims		\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
7	Various	Assessment Budgets	Retain Building Inspector Report as required.		\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
8	Various	Fencing Maintenance Program	Repair and paint fences.	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
9	Various	Road Maintenance Program	Repair potholes and slope for drainage as required.	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
10	Various	Irrigation and Water Line Replacement Program	Replace water lines and garden hydrants.	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
Projects													
11	Visitor Center, Greenhow Museum, O'Keefe House	Hazardous Materials Assessment	Retain hazardous materials report for organic growth at base of basement wall and pipes. Retain hazardous materials report for animal droppings and vermiculite insulation. Retain hazardous materials report for organic growth.	\$ 10,000.00									
12	Greenhow Museum	Stair Replacement and Repair	Replace basement and emergency exit stairs. Repair second floor stairs.		\$ 25,000.00								
13	Meat & Dairy	Additional Structural Support	Add support at Dairy and Garage. Add blocking at cut joists. Ensure support is close enough as to ensure that South masonry wall is not load bearing.		\$ 7,000.00								
14	Meat & Dairy	Wall and Floor Repairs	Support and repair north and east walls. Remove and reinstate cladding. Landscape to expose structure. Install vents over openings. Patch repair concrete steps to Dairy building.		\$ 5,000.00								
15	Blacksmith Shop	Replace forge ventilation systems											
16	O'Keefe House, Blacksmith Shop	Chimney Repairs	Provide additional support to leaning chimney. Replace spalled bricks. Provide double wall flue flashing at combustile roof.		\$ 5,000.00								
17	Hay Shed	Concrete Repair	Clean reinforcement and repair concrete.		\$ 5,000.00								
18	Decommissioned Foot Bridge and Log Foot Bridge	Bridge Removal and Replacement	Environemntal Impact Report Remove and Dispose of bridges		\$ 125,000.00								
19	O'Keefe House	Geotechnical Report	Retain geotechnical report for review of wall.	\$ 8,000.00									
20	Visitor Center	Carpentry Repairs	Remove rotted truss tails and provide flashing Remove rotted wood from post and add pedestal		\$ 8,000.00								
21	Visitor Center	Drainage Replacement	Add drainage and extend RWL. Address cooler room Clean walls		\$ 20,000.00								
22	O'Keefe House, Log Barn, Schubert Barn	Structural Assessment	Retain structural engineer report on roof and deflecting ceilings at O'Keefe House Retain structural engineer report for Schubert Barn Retain structural engineer report for Log Barn loft	\$ 10,000.00									
23	Corral	Grandstand Remove and Replacement	Remove grandstand and replace with new.			\$ 5,000.00							
24	Various	Fire Rated Rooms	Built fire rated rooms for water heaters, furnaces, etc.		\$ 60,000.00								
25	O'Keefe Hous,e Log Barn Lean-To, Carriage Shed, Schubert House	Foundation Repair	Provide fill where undermined Repair wood pony wall where tilted and repair CMU blocks that are damaged Provide support and repair foundation columns Add fill to support concrete slab		\$ 25,000.00								
26	Various	Misc. Electrical Repairs	Replace disconnect switches at Meat and Dair and SPPC #1 Replace ITE panel at pump house Remove old meter at Stagecoach Depot Clean up wiring at O'Keefe House and Schubert House		\$ 9,000.00								
27	Log House, Schubert House	Chimney Repairs	Replace spalled brick Repoint mortar joints					\$ 5,000.00					
28	O'Keefe House	Water Management	Clean walls and extend gutters. If conditions persist add drainage. Remove rotted wood at proch and patch repair. Add scuppers				\$ 5,000.00						
29	Visitor Center	Cooling Unit Replacement	Replace Cooling unit and cooling fan coil			\$ 14,000.00							
30	Museum	Hot Water Heater Replacement	Remove and dispose of old heater and install new.					\$ 6,000.00					
31	Stagecoach Depot	Hot Water Heater Replacement	Remove and dispose of old heater and install new.			\$ 6,000.00							
32	O'Keefe House	Condensate Pump Replacement	Remove and dispose of old heater and install new.		\$ 2,000.00								
33	Carriage Shed	Hot Water Heater Replacement	Remove and dispose of old heater and install new.		\$ 3,000.00								
34	SPPC Clubhouse	Furnace Upgrade	Upgrade to new furnace				\$ 13,000.00						
35	SPPC Clubhouse	Hot Water Heater Replacement	Remove and dispose of old heater and install new.				\$ 6,000.00						
36	Various	Hot Water Upgrade	Upgrade water systems to have hot water at sinks					\$ 10,000.00					
37	Various	Misc. Mechanical Repairs	Configure natural gas piping in Museum and SPPC Clubhouse Provide drain pan for water heaters Replace galvanized piping at Pumphouse Upgrade piping insulation			\$ 8,000.00							
38	Implement Sheds, SPPC Displays, SPPC Clubhouse	IGU Replacement	Replace IGUs as required.										



Scenario 2: Preservation Approach				Maintenance and Renewal Expenditures									
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Reference #	Location	Title	Description	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Programs													
39	Visitor Center, Caretaker's House, SPPC Clubhouse	IGU Replacement	Replace IGUs as required.										
40	O'Keefe House, Schubert House	Plaster and Lath Repair or Replacement	Repair plaster and lath or replace with drywall.		\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
41	O'Keefe House	AHU Repair	Replace cooling coil in unit						\$ 6,000.00				
42	St. Anne's Church	Heating Upgrade	Update to sealed combustion condensing unit										
HCP.1	Greenhow Museum	Geenhow Museum Artefact Review	Review artefacts to determine if inventory can be reduced	\$ 5,000.00									
HCP.2	Various	Machinery and Exhibits Artefact Assessment	Review artefacts to determine if inventory can be reduced	\$ 5,000.00									
HCP.3	Various	Arborist Assessment	Review and maintain vegetation	\$ 3,000.00									
HCP.4	1966 Provincial Stop of Interest Sign	Signs and Interpretation	Update signage for interpretation			\$ 5,000.00			\$ 5,000.00			\$ 5,000.00	
HCP.5	Various	Operational Heating at Finished Buildings	Provide minimum 7 degrees celsius heating during winter months of un-used buildings.	\$ 6,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00
Subtotal				\$ 67,000.00	\$ 391,000.00	\$ 110,000.00	\$ 96,000.00	\$ 93,000.00	\$ 83,000.00	\$ 72,000.00	\$ 72,000.00	\$ 77,000.00	\$ 72,000.00
Contract Administration (18%)				NA	\$ 70,380.00	\$ 19,800.00	\$ 17,280.00	\$ 16,740.00	\$ 14,940.00	\$ 12,960.00	\$ 12,960.00	\$ 13,860.00	\$ 12,960.00
Soft Costs (25%)				NA	\$ 97,750.00	\$ 27,500.00	\$ 24,000.00	\$ 23,250.00	\$ 20,750.00	\$ 18,000.00	\$ 18,000.00	\$ 19,250.00	\$ 18,000.00
Owner Contingencies (20%)				\$ 13,400.00	\$ 78,200.00	\$ 22,000.00	\$ 19,200.00	\$ 18,600.00	\$ 16,600.00	\$ 14,400.00	\$ 14,400.00	\$ 15,400.00	\$ 14,400.00
Hazardous Materials Contingency (15%)				NA	\$ 58,650.00	\$ 16,500.00	\$ 14,400.00	\$ 13,950.00	\$ 12,450.00	\$ 10,800.00	\$ 10,800.00	\$ 11,550.00	\$ 10,800.00
Total				\$ 80,400.00	\$ 695,980.00	\$ 195,800.00	\$ 170,880.00	\$ 165,540.00	\$ 147,740.00	\$ 128,160.00	\$ 128,160.00	\$ 137,060.00	\$ 128,160.00
Rounded Total				\$ 90,000.00	\$ 700,000.00	\$ 200,000.00	\$ 180,000.00	\$ 170,000.00	\$ 150,000.00	\$ 130,000.00	\$ 130,000.00	\$ 140,000.00	\$ 130,000.00