Official Residences of Canada

National Capital Commission
Commission de la capitale nationale

2021 ASSET PORTFOLIO CONDITION REPORT

Canada

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Executive Summary

Canada's six Official Residences—located in the National Capital Region, under the stewardship of the National Capital Commission—are national treasures. No six homes play a larger role in enabling the leadership of our Constitutional Monarchy, our Federal Government, our Parliament, our Official Opposition and our international relations.

Constitutional conventions, acts of Parliament and other legal instruments make them, first and foremost, homes to Canada's official leaders[1] while they hold office. As such, they have been host to many of the most significant events in Canada's history. Combined with their unique architectural character, this makes them essential building blocks in Canada's national pride.

This report lays out in detail the current state of these properties, under the stewardship of the National Capital Commission (NCC), after decades of deferred maintenance due to insufficient funding.

The NCC's legislative mandate for the Official Residences is to:

"…maintain and, from time to time as required, improve those lands."[2]

These Government facilities are also expected to provide safe and appropriate accommodations for Canada's official leaders and serve as inspiring properties and grounds for the conduct of state events and ceremonies; that they are furnished, maintained and rehabilitated to safeguard their national heritage.

The six Official Residences in the National Capital Region (NCR) are:

- **Rideau Hall:** home and workplace to the Governor General of Canada
- **24 Sussex Drive:** home to the Prime Minister of Canada
- **Harrington Lake:** the country residence of the Prime Minister of Canada
- **Stornoway:** home to the Leader of the Official Opposition
- **The Farm:** home to the Speaker of the House of Commons
- **7 Rideau Gate:** home to official guests of the Government of Canada

These principal residences are supported by another 49 ancillary buildings, several of which are designated heritage buildings, such as Rideau Cottage and 10 Sussex Drive.

The NCC, led by its Board of Directors, plans, initiates and implements major works and capital investment spending decisions on Official Residences. This update to the

[1] Appendix A lists the names of all the occupants since Confederation.
[2] *Official Residences Act*, (1985) section 6

2018 *Official Residences of Canada: Asset Portfolio Condition Report*, presents the state of the Official Residences Portfolio (the Portfolio) managed by the NCC as of January 2021 based on an in-depth assessment of selected key assets,[3] completed in early 2020, as well as the re-evaluation and adjustment of the 2017 data, published in the 2018 Report.

Approximately 75% of the Portfolio is over 50 years old, with 16% over 150 years old. Due to their age and current state, the Official Residences are currently the largest contributor of CO_2 emissions among the large number of assets under the stewardship of the NCC. Together they produce 60% of the NCC's total emissions.

While the emissions performance of Canada's Official Residences is of significant concern, the challenge this represents runs far deeper. Decades of underfunding—a lack of timely investment in the maintenance, preservation and renewal of these properties—have resulted in a growing deferred maintenance deficit and severely deteriorating asset condition. The overall Facility Condition Index (FCI) of 0.136 for the Portfolio makes this especially clear, indicating an overall condition of "Poor," of which 22% of the Portfolio is in "Critical" condition.

The rate at which the buildings' conditions are deteriorating due to underfunding will be explained in further detail throughout the rest of this report. As an illustration, since the 2018 Report, the NCC has invested approximately $26M in capital funding, including the rehabilitation of the Farmhouse at Harrington Lake, various upgrades to the Rideau Hall Monck Wing, the Ballroom plaster stabilization, and health and safety-driven Operations Zone redevelopment project.

Despite these investments, the cost of addressing the Portfolio's original deferred maintenance deficit has increased to $89.1M (from $83M in the 2018 Report) and its FCI worsened. The Current Replacement Value (CRV) of the Portfolio has now reached $653.2M, up by $38M since 2018.

As indicated in the 2018 Report, without sustainable funding, the deferred maintenance deficit will continue to grow, and the overall deterioration of Canada's Official Residences will continue.

The $89.1M deferred maintenance deficit in the current report, as was the case of the $83M in the 2018 report, refers to "*the backlog of unfunded major maintenance and renewal projects that have been deferred to future budgets. It results either from an accumulation of neglected routine maintenance items which evolve into more serious concerns or from failure to carry out major repair or restoration projects on facilities which have reached the end of their life cycle or have become obsolete."*[4] This value is a

[3] The 14 buildings selected to be part of the update included the main residences, except for 24 Sussex since its condition is well known, and 9 other key assets.
[4] 2001 Standing Senate Committee on National Finance Report: *The Role of the Government in the Financing of Deferred Maintenance Costs in Canada's Post-Secondary Institutions.*

cost estimate for a "like for like" replacement or repair of the asset. It does not necessarily address new building codes or legislative requirements, such as the recently introduced *Accessible Canada Act* and the significantly revamped *Federal Sustainability Act*, nor does it include long-needed functional improvements. In other words, limiting investments to reducing the deferred maintenance deficit alone, as described above, would be insufficient to ensure the current portfolio of the Official Residences fully comply with all applicable codes and legislation.

Now that the opportunity exists to accurately account for the additional costs associated with new building codes, evolving legislative requirements, as well as the heritage conservation measures, which typically drive costs up, we can see a notable increase in the estimated cost of overcoming the deferred maintenance deficit.

By applying common industry standards and allowances for sustainability and universal accessibility (UA) requirements, soft costs, construction contingencies, cost escalations and risk management, it is now estimated that a one-time injection of $17.5M per year, over 10 years—for a total of $175M—is needed to close the deferred maintenance gap.

	INVESTMENT PER YEAR OVER 10 YEARS
Deferred maintenance	$8.9M
Code and legislation compliance modernization, including UA & sustainability	$8.6M
Total	**$17.5M**

The proposed investments would enable the NCC to pursue improvement opportunities, such as implementing sustainable best practices for building construction and renovation.

This would reduce the Government's Greenhouse Gas (GHG) emissions and further contribute to the Federal Sustainable Development Strategy. As an example, the rehabilitation of Official Residences in critical condition, such as 24 Sussex Drive, would not only address key systems that are in critical need of replacement, it would also significantly improve the energy efficiency of these important properties located in the heart of Canada's Capital. This would promote a clean environment for future generations and serve as an example for comparable projects around the world.

Investing in Canada's infrastructure contributes to strong communities. As part of its broader Universal Accessibility Strategy and in compliance with the *Accessible Canada Act*, the NCC is developing a comprehensive strategy for the main building of Rideau Hall, which will serve to inform similar strategies for each of the Official Residences. The proposed investments will support the NCC in ensuring its programs and services meet the accessibility needs of all Canadians.

These capital investments would be made over a 10-year period, with the 24 Sussex Drive project alone expected to take five years to complete, including consultations and a design process.

Once the Official Residences Portfolio's immediate capital needs have been addressed, it will also be necessary to invest in a proactive level of maintenance designed to both protect the value of the properties and assure they continue to operate at optimal levels.

The Government of Canada's *Guide to the Management of Real Property* indicates that the minimum level of annual investment needed to maintain real property in good condition is 4% of its replacement value.

Based on the CRV estimated at $653.2M, sustainable funding for the Official Residences Portfolio equates to $26.1M annually. This increase in annual appropriations, coupled with the one-time injection of $17.5M per year over 10 years, would provide a sustainable source of funding that would enable the NCC to comply with its legislative mandate to conserve the built heritage of national interest under the NCC's stewardship and meet current building code and legislative requirements.

In addition to a long-term funding solution, predictable access to the residences is equally important for the NCC to undertake regular repair, maintenance and scheduled capital improvements. In the absence of either scenario, the NCC will continue to responsibly manage the residences with the limited resources available. However, significant recapitalization of the entire Portfolio within the next 5 to 10 years is unavoidable. Based on current practices, it would only be a matter of time before certain assets reach the same level of disrepair as 24 Sussex Drive.

1 Introduction

The NCC's mission is to ensure that Canada's Capital Region is of national significance and a source of pride for Canadians. Over the course of the 2021–2022 to 2025–2026 planning period, three strategic directions will guide the NCC, as it delivers its mandate to continue building a dynamic, sustainable, inspiring and thriving Capital Region.

Furthermore, the NCC will concentrate its efforts on six priorities over the planning period, consistent with the 2017–2067 Plan for Canada's Capital:[5]

1. Address the condition of Canada's Official Residences, and other critical NCC infrastructure and assets.
2. Facilitate the redevelopment of LeBreton Flats and revitalize the islands and shorelines to become destinations of national significance.
3. Pursue strategies to achieve financial sustainability.
4. Develop and communicate land use plans and provide timely and effective coordination of federal land use and design in the National Capital Region.
5. Provide leadership in achieving an environmentally sustainable and resilient National Capital Region and exemplary stewardship of federal lands and assets.
6. Demonstrate corporate excellence as a federal Crown corporation, such that the NCC promotes diversity and inclusion and is recognized as an employer of choice in the National Capital Region.

As the steward of federal lands and assets in the NCR, the NCC is mandated to ensure that they are safe, appropriate and sustainable for Canadians to experience. The corporation has worked diligently alongside federal partners to protect its public infrastructure and to address deferred maintenance on the NCC's diverse asset portfolio—especially as it relates to Canada's Official Residences.

An essential role of the Official Residences is to provide a worthy setting to represent the best of the country to both Canadian and international visitors, in a manner consistent with the constitutional and legislative roles fulfilled by the Governor General, the Prime Minister, the Leader of the Official Opposition and the Speaker of the House of Commons.

To this end, the NCC strives to maintain and furnish the state or official areas of these residences to the standard of excellence expected by Canadians, to display examples of Canada's finest furniture and art, to provide comfortable and attractive interiors, and to design inspiring grounds and surroundings.

The ownership and stewardship responsibilities for the buildings and grounds of the Official Residences in the NCR were officially transferred from Public Works and

[5] http://capital2067.ca

Government Services Canada (PWGSC, now Public Services and Procurement Canada – PSPC) to the NCC in January 1988. The six Official Residences in the NCR are:

- **Rideau Hall:** home and workplace to the Governor General of Canada
- **24 Sussex Drive:** home to the Prime Minister of Canada
- **Harrington Lake:** the country residence of the Prime Minister of Canada
- **Stornoway:** home to the Leader of the Official Opposition
- **The Farm:** home to the Speaker of the House of Commons
- **7 Rideau Gate:** home to official guests of the Government of Canada

These primary buildings are all designated "classified" or "recognized" heritage by the Federal Heritage Buildings Review Office (FHBRO), reflecting the great national significance of the portfolio.

The entire Official Residences Portfolio includes not only these six primary residences, but also an additional 49 ancillary buildings, together providing a total gross area of approximately 25,000 square metres.

These Official Residences serve several key functions:

- a place for official business;
- a home and accommodation for the residents, their families and guests;
- working quarters and workplace accommodations for staff; and
- accommodation to host foreign and Canadian guests.

The NCC furnishes the residences with valued assets from the Crown Collection. The Collection comprises contemporary and antique works of art and furniture. Many of the items come from donations made through the Canadiana Fund. The Canadiana Fund was established in 1990 by the NCC to enhance the state and official areas of Canada's Official Residences, through donations of examples of historical furnishings, paintings and *objets d'art*. The chosen pieces reflect Canada's heritage and artistic traditions, or are historically associated with, or seek to complement, the architectural style of each residence.

2 Asset Portfolio

The Official Residences reflect the nation to Canadians and to foreign visitors, so they must be maintained at a level that reflects the importance of the role of the residents. However, funding for Official Residences has been so constrained in the last several decades that properties such as 24 Sussex no longer reflect even this basic standard.

The National Capital Commission's overall mandate for the Official Residences is to ensure that they provide safe and appropriate accommodations for Canada's official leaders and that they serve as inspiring properties and grounds for the conduct of official and state events and ceremonies. The NCC also ensures that they are furnished, maintained and rehabilitated to safeguard their national heritage.

Governance and Oversight

The NCC's Board of Directors is responsible for the stewardship of the NCC's activities and assets—including the Official Residences. The minister responsible for the *National Capital Act* appoints board members with the approval of the Governor-in-Council, while the Governor-in-Council appoints the chair and CEO.

In carrying out its role, the Board of Directors undertakes the following:

- Sets broad strategic directions for the organization;
- Ensures the effective and efficient use of corporate resources;
- Monitors and reviews corporate performance and risks;
- Approves the corporate plan, annual report and quarterly financial reports;
- Approves significant projects and transactions; and
- Fosters relationships with government, stakeholders and the public.

The Advisory Committee on the Official Residences of Canada (ACORC) provides objective professional advice to the CEO and executive management on asset

management and matters relating to the six Official Residences in Canada's Capital Region. Committee members include experts in interior design, architecture, landscape design, heritage preservation and real property asset management.

Funding

In 1987, following the decision to transfer responsibility of the management of the six Official Residences from PWGSC (now PSPC) to the NCC, some operating funds and full-time employees were transferred, without any capital funding or provision for future capital funding.

The investment required to properly maintain the NCC's infrastructure and asset portfolio (with a total replacement value of approximately $2.2B) significantly exceeds the NCC's annual capital appropriations from Parliament of $23M. In particular, pursuant to government decisions, only $3M of the NCC's annual capital appropriations has been earmarked for the Official Residences asset portfolio, which includes 55 buildings.

The Official Residences compete equally with the other NCC assets for capital allocation and reallocations that result in the Multi-Year Capital Program, approved annually by the NCC's Board of Directors. Through this planning exercise, all projects are prioritized using a set of criteria, and available funding is allocated to the highest-ranked projects.

Over the past 10 years, capital expenditures allocated to the Official Residences Portfolio have averaged $6.1M per year, far surpassing the $3M appropriation. This means that due to the severe underfunding of the Official Residences, even fewer resources have been made available to support the NCC's other important assets, which were already significantly deprived of adequate funding.

Due to the shortfall in funding in general, and for the Official Residences specifically, the NCC has had to defer maintenance on numerous assets in order to prioritize work, primarily to address health and safety issues.

While recent budget allocations from the Government have provided the NCC with important investments to allow the corporation to significantly improve the condition of certain priority assets, the Official Residences did not benefit from these recent government allocations. The rehabilitation and restoration of assets within the Official Residences Portfolio remains a key corporate priority.

Management Principles

A statement of philosophy and a set of management principles have been established, with the support of the ACORC to guide the NCC in its duties of policy development, strategic planning, long-term development and maintenance of the Official Residences. The full text of these guidance documents can be found in Appendix B.

2.1 LOCATION

The Official Residences of Canada's Capital Region are located on both sides of the Ottawa River: two in the province of Quebec and four in the province of Ontario.

A general map is provided below, showing the location of each of the six Official Residences.

The properties in Ontario are located within 1 km of each other in the area of Rockcliffe Park in Ottawa, whereas the Quebec properties are located in more rural areas of the towns of Chelsea and Pontiac. Harrington Lake is the most distant property to service, located approximately 30 km from Rideau Hall.

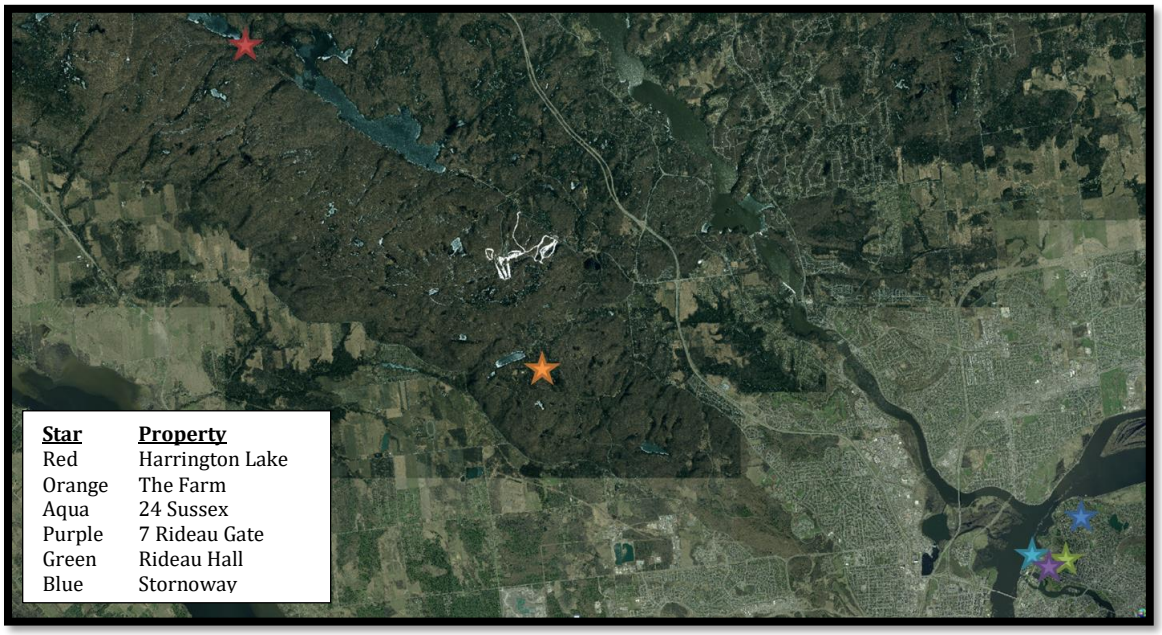


Figure 1: Map of National Capital Region showing the location of the NCC's six Official Residences

2.2 SIZE OF ASSET PORTFOLIO

The NCC is responsible for the property management activities, as well as long-term capital planning and support in capital improvements for the six-property, 55-building portfolio.[6] Four of the buildings that the NCC maintains within the Official Residences Portfolio are located at a remote site and used for storage of materials and equipment. The Portfolio by property is shown below.

[6] The NCC is also responsible for interior design services, stewardship of the Crown Collection of Canada, and maintaining the grounds and greenhouses.

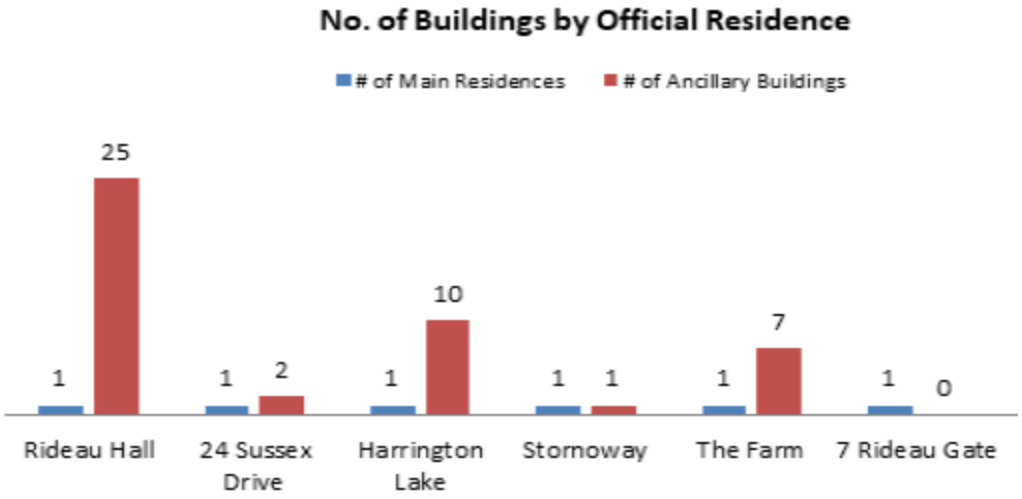


Figure 2: No. of Official Residence Buildings

2.3 AGE OF ASSET PORTFOLIO

The main residences and the overwhelming majority of their ancillary buildings were built when different building codes and lower standards of health and safety requirements applied. Approximately 74% of the building portfolio is over 50 years old, with 16% older than Canada, which recently celebrated its 150th birthday in 2017.

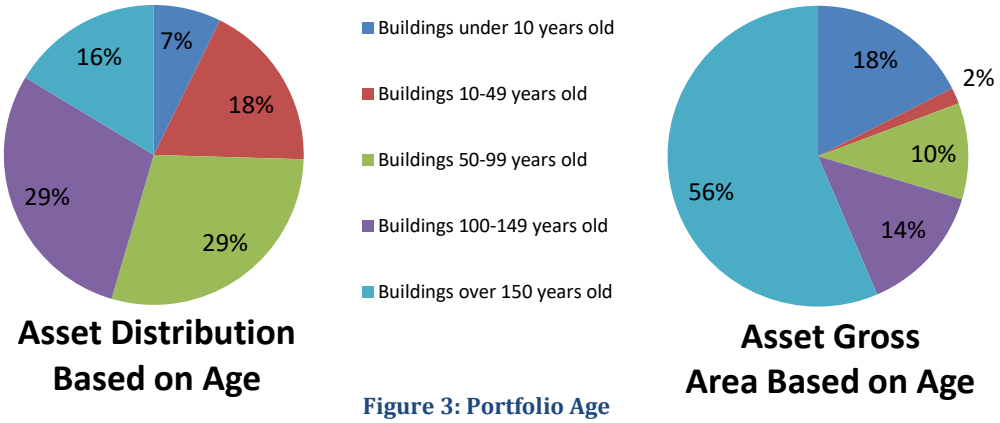


Figure 3: Portfolio Age

Operating, maintaining, and improving an aged and aging building stock comes with significant challenges. This is clear when comparing the performance of the Official Residences' building stock to recently built assets. These more modern buildings have important performance, function and usage benefits due to drastic improvements in energy efficiency and program design, in addition to new UA standards that have come into effect over time.

Further, very few of the buildings in the Portfolio were purpose-built for their current use, which affects the livability and functionality of most of the major assets. The majority of the gross area of the Portfolio has been repurposed to fit with changing occupant requirements. Former stables, dairy houses, and gasometers at the turn of the 20th century are now spaces for office administration, public usage, and mail services in the 21st century.

A particularly striking example of the impact of the age of the Portfolio on its cost and performance relates to issues of sustainability and greenhouse gas emissions. Due to the age and lack of funding for Official Residences in the NCC portfolio, those properties now account for more than 60% of all greenhouse gas emissions generated by NCC assets.

2.4 CONDITION OF ASSET PORTFOLIO

Investments over time into the operation and maintenance of a facility or portfolio largely influence its physical condition. Therefore, it is important to regularly monitor and assess the condition of a facility or portfolio to ensure that the necessary funding is allocated in an effective manner, to maintain or improve each built asset and ensure it continues to efficiently contribute to the program it supports.

Prior to 2017, building inspections of the Portfolio were performed on a three-year cycle by the NCC's lifecycle inspection team, to assess a number of building components. These components were evaluated on a scale from critical to excellent, and examined building systems for signs of deterioration, deferred maintenance, code issues, potential upgrades, etc.

2.4.1 Portfolio Condition Assessment Program

In 2017, the NCC revised the assessment program for the Official Residences to provide a more thorough understanding of the condition of the Portfolio.

For the largest and most complex buildings, the NCC commissioned in-depth building condition reports (BCRs), consistent with a PSPC Level II BCR. These BCRs were performed by a third party, multidisciplinary team of professionals. The PSPC reporting template, methodology, and costing baseline was adopted by the NCC lifecycle inspection team who, in turn, assessed and generated a dedicated BCR for a large majority of the remaining Official Residences' building stock. They were fully supported by NCC building operations staff to ensure that building component history was accurately captured.

It should be noted that the three buildings located at 24 Sussex Drive, the Main Cottage at Harrington Lake and Rideau Cottage were excluded from the 2017 study,

as the condition of these buildings was well known. This is due to the numerous in-house and third-party investigations and studies performed on behalf of the NCC in recent years.

In total, the 2017 assessment program had comprehensively detailed the investment requirements to address ongoing maintenance, deferred maintenance, and other capital infrastructure renewal of 50 of the then 56 buildings (89%) in the Portfolio (one ancillary building has since been demolished due to instability and health and safety concerns, bringing the total to 55). Coupled with the numerous investigations and reports completed on the buildings at 24 Sussex Drive and the Main Cottage at Harrington Lake, the NCC had renewal investment information for over 96% of the Official Residences building portfolio.

To provide an independent verification, a third-party review of the deferred maintenance costing was completed for the largest and most complex buildings.

2020 Building Condition Reports (BCR)

In late 2020, the NCC updated its BCR information and associated cost estimates in view of developing long-term Asset Management Plans (AMPs) for each of the properties and residences.

The 14 buildings selected to be part of the update included the main residences, except for 24 Sussex and 9 other key assets. 10 Sussex was included in this review, as was the Main Cottage at Harrington Lake to provide a before and after perspective of the budgets, schedules and delivery methods, to help inform future projects, once again using the PSPC reporting templates.

For the buildings that were not included in the 2020 inspections, the information in the 2018 Report was reviewed internally and adjusted to account for the recent work completed, and the costing associated with the remaining maintenance requirements, which was then escalated by 2% per year, over 3 years.

The costs provided in the reports for the properties reviewed in 2020, were estimated and validated by Turner & Townsend. These Building Condition Reports are the basis from which the Official Residences' estimated deferred maintenance deficit of $89.1M has been calculated.

These estimates represent average, non-residential construction involving union labour. In some instances, these cost estimates have been increased, using the actual cost of past projects, industry knowledge, or current industry pricing. Prices are inclusive of 15% site overhead and profit, a 15% construction contingency, a design contingency of 20% and a 30% allowance for soft costs on top of which a 25% risk management contingency was added. No allowances have been included for alteration work, difficult access, crash schedules, or any other extremes or unforeseen conditions.

The Government of Canada's *Guide to the Management of Real Property* (Treasury Board of Canada) identifies the overriding objective of a property steward as ensuring that a property continues to fully, effectively, and efficiently meet the program requirements of the department whose program it supports.

To make informed real property investment decisions, metrics need to be established to identify which properties in a portfolio are effectively and economically supporting a department or agency's program.

2.4.2 Facility Condition Assessment

The facility condition index (FCI) is a key performance indicator which is used by real property managers to objectively quantify and evaluate the current condition of a facility or portfolio. The FCI is a calculation based on known deferred maintenance costs divided by the current replacement value (CRV) of the asset; the lower the FCI, the better the condition of the building or portfolio as more maintenance has been completed, than deferred.

$$\textbf{\textit{Facility Condition Index}}\ (\textbf{\textit{FCI}}) = \frac{\textbf{\textit{Deferred Maintenance}}\ (\textbf{\textit{DM}})}{\textbf{\textit{Current Replacement Value}}(\textbf{\textit{CRV}})}$$

Based on this ratio, which can range between 0 and 1, the NCC qualifies its building assets in line with the Treasury Board of Canada Secretariat's *Directory of Federal Real Property*'s (DFRP) building condition field classifications as either "Good", "Fair", "Poor", or "Critical" condition. The definition for each classification is shown below.

DFRP BUILDING CLASSIFICATION	FCI	ASSET SYSTEM(S)	RISK OF SYSTEM(S) FAILURE	O&M COSTS
Good	0.00–0.05	Meet(s) all operational requirements	Highly Unlikely	Low and Predictable
Fair	0.06–0.10	Meet(s) most operational requirements	Unlikely	Moderate with Some Backlog
Poor	0.11–0.30	Some or all are compromised	Likely	High with Unplanned Maintenance
Critical	0.31–1.00	Frequent emergency maintenance and repair	Very Likely	High with Frequent Unplanned Maintenance

Table 1: DFRP Building Classification System Definitions

Official Residences Portfolio FCI Assessment

The 2018 CRV of $615M for the Official Residences Portfolio was calculated based on a number of factors including: the area of the building, class of building, third-party opinion of probable costs, or actual project costs of select federal and provincial heritage buildings which took place between 2012 and 2017.

The buildings' respective 2018 CRVs were then escalated by 2% per year over three years for a 2021 revised CRV of $653.2M. It is important to note that the Portfolio has undergone minor changes since 2018, including the demolition of one building and the rehabilitation of two of the three buildings in critical condition.

Based on the estimated deferred maintenance deficit of $89.1M and an estimated CRV of $653.2M, the overall FCI of the Portfolio in 2021 is 0.136, which means an overall classification of "Poor".

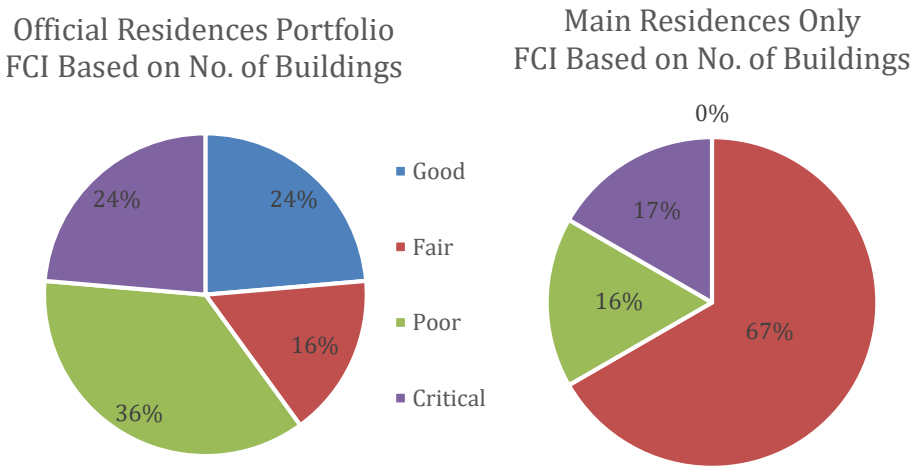


Figure 4: OR Portfolio FCI Assessment

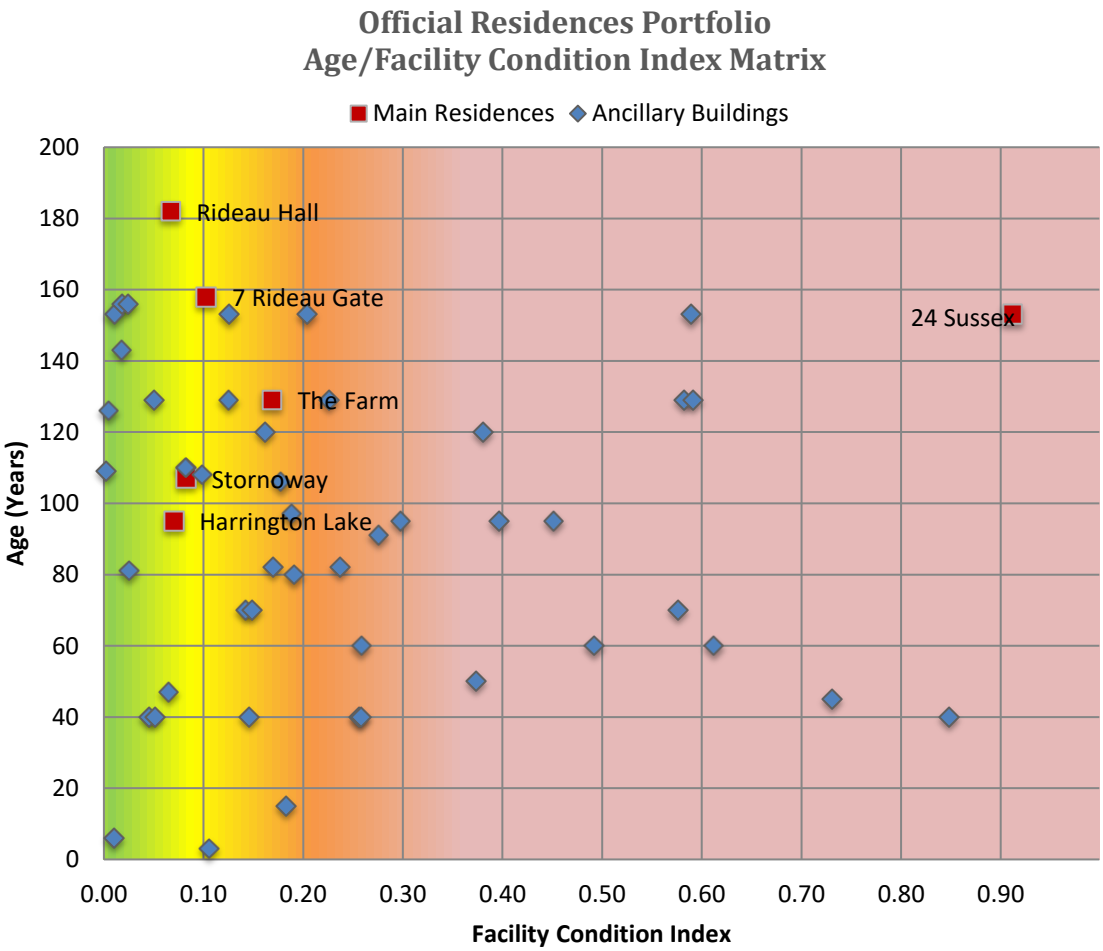


Figure 5: OR Portfolio Age/FCI Matrix

Figures 4 and 5 demonstrate that while the overall FCI for the Portfolio is "Poor" at 0.136, 61% of the Portfolio's individual assets are identified as being in "Poor" to "Critical" condition. However, the vast majority of the assets are operationally safe. Of the main residences, Rideau Hall, Harrington Lake, Stornoway and 7 Rideau Gate are now all in "Fair" condition, with the Farm in "Poor" leaving only 24 Sussex "Critical". Historical investments have been prioritized to repair building failures (roof leaks, plumbing, electrical, etc.), alleviate current health and safety concerns, comply with regulations and ensure critical building systems remain in operation.

	2018	2021
Deferred Maintenance (DM)	$83.0M	$89.1M
Current Replacement Value (CRV)	$615M	$653.2M
Facility Condition Index (FCI)	0.134/Poor	0.136/Poor

2.4.3 Asset Priority Index

The Asset Priority Index (API) is a metric assigned to each Official Residences' real property assets that indicates the relative importance of the asset in supporting the program's objectives. In tandem with the FCI, the API allows the NCC to better compare assets against each other, in order to make effective and timely funding and programming decisions. The API has been a determining factor in the decision to rehabilitate the Main Cottage at Harrington Lake and the NCC's interest to begin work at 24 Sussex Drive, once Government funding is made available.

Furthermore, by assigning a relative priority to each of its assets, the NCC is well positioned to determine the level of intervention that each asset requires. For example, a high priority building in "Critical" condition may warrant additional funding when compared with a lower priority building, in the same condition, which, due to its low priority, may be considered for demolition or disposition.

Each of the Official Residences' built assets is assigned an API ranging from 0 to 100, where 100 is an asset of highest priority and just above 0 is an asset of lowest possible priority.

The API is generated by individually rating a number of criteria that are important to delivering on program objectives and to maintain and preserve the assets to effectively and efficiently meet the program requirements of its occupants.

CRITERIA	ASSESSMENT	POINTS
Heritage Preservation	Is the asset of historical significance? Is it easily substituted?	0–20
Availability	Is the asset readily available to the NCC to perform work?	0–15
Building Criticality	Is the asset critical to the ongoing operations of the Official Residences?	0–15
Functionality	Does the asset have livability issues? Does the asset perform poorly for its purpose?	0–10
Designated Substances	To what degree does the asset contain designated substances?	0–10
Health and Safety	Does the asset have Code issues? Universal Accessibility issues? Outstanding safety issues?	0–20
Environmental Impact	What is the asset's relative impact on greenhouse gas emissions?	0–10

Table 2: Asset Priority Index (API) Definition

Note that asset condition is not a criterion in scoring the API. The API is solely for ranking assets in their priority in meeting program objectives. Should an asset have a high API and high FCI (e.g., be in poor/critical condition), it would be a higher priority relative to other investment needs.

A comparison of the API and FCI of the Portfolio is shown in the graph below.

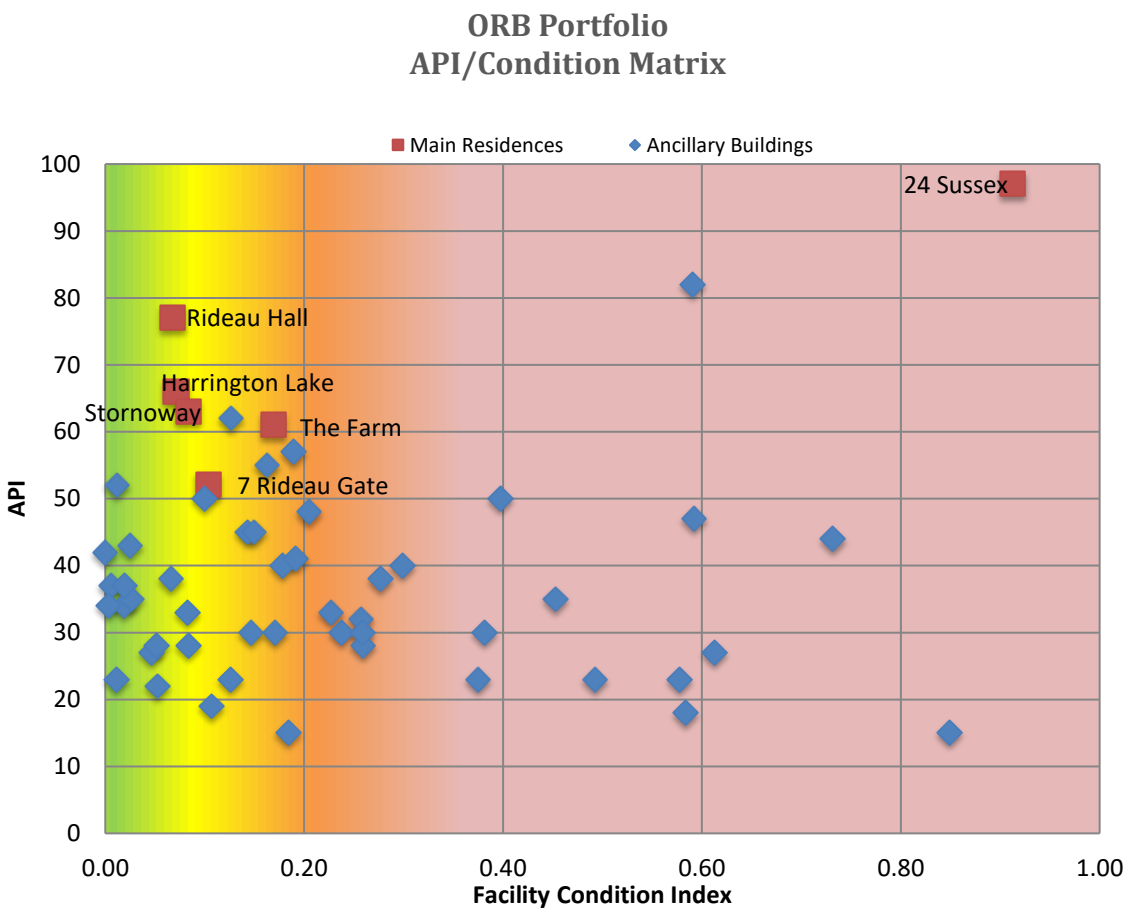


Figure 6: OR API/FCI Matrix

Figure 6 demonstrates that 24 Sussex is in critical condition and a high priority.

2.5 SUSTAINABLE FUNDING

Deferred Maintenance Deficit

The Deferred Maintenance (DM) of a building typically refers to "*…the backlog of unfunded major maintenance and renewal projects that have been deferred to future budgets. It results either from an accumulation of neglected routine maintenance items which evolve into more serious concerns or from failure to carry out major repair or restoration projects on facilities which have reached the end of their life cycle or have become obsolete."*[7] This value is a cost estimate for a "like for like" replacement or repair of an asset.

For the Official Residences Portfolio, the DM is the estimated value of the cumulative work required over time to maintain the asset in "Good" condition. This deficit is currently estimated at $89.1M and is due to decades of underfunding and a lack of extended access to the properties in order to complete the work.

Asset Recapitalization

As shown in Figure 3, 74% of the building portfolio is over 50 years old.

There are numerous issues that need be resolved in each of the residences, including building envelope, programmatic operations, building systems, and security.

Recent improvements of heating and cooling systems in some of the buildings has resulted in more efficient operation, however, most of the buildings have little or no insulation, and far exceed GHG target emissions (As a federal Crown corporation the NCC must meet the Net Zero by 2050; target set by the Government of Canada). Many of the building systems have reached the end of their useful life, are no longer running efficiently, are susceptible to frequent failures and require a great deal of maintenance or replacement. The age and condition of the electrical systems necessitate a long-term strategy to incrementally replace the panels and distribution across the entire Portfolio. The sanitary plumbing systems fail or backup on a regular basis. The fire protection piping requires cyclical attention to ensure that it functions as intended, when required. Certain air handling systems need to be upgraded or replaced, due to their age. UA is also a major issue for every residence and is a serious concern to all Canadians and increasingly so with an aging population.

All these identified works are complicated by the heritage designation of the buildings, the presence of contained asbestos throughout many of the interior finishes, and many areas that need renewal are within confined work areas in spaces that are difficult to access.

[7] 2001 Standing Senate Committee on National Finance Report: *The Role of the Government in the Financing of Deferred Maintenance Costs in Canada's Post-Secondary Institutions.*

What this means is that significant recapitalization of the entire Portfolio within the next 5 to 10 years is unavoidable. Without significant investments, it is only a matter of time before more buildings must be vacated to ensure health and safety of the occupants.

Sustainable Funding

In terms of strategic planning, a standard and recognized best practice ascribes a minimum 2% of the cost to rebuild the asset is to be invested annually for maintenance and repairs. This standard applies to most built assets including buildings, facilities or public works such as roads and sewers. Assuming that a built asset has a useful life of approximately 50 years, an additional 2% is to be invested in capital projects that extend and renew the life of the asset. Heritage assets require even more annual investment, given the age of the materials/systems and the complexity of restorative and preservation work. This is reflected in the Government of Canada's *Guide to the Management of Real Property*, which indicates that the minimum level of annual investment to maintain real property in good condition is 4% of its replacement value.[8]

Based on the CRV of **$653.2M**, sustainable funding for the Official Residences Portfolio is estimated to be **$26.1M** annually (~**$13M** for repair and maintenance and ~**$13M** for capital investment).

As annual investments in this order of magnitude have never been available for the Official Residences Portfolio, many assets have deteriorated faster than life cycle forecasts would predict and now require complete recapitalization. The following figure highlights the benefits of timely renewal investments:

[8] Government of Canada's *Guide to the Management of Real Property*.

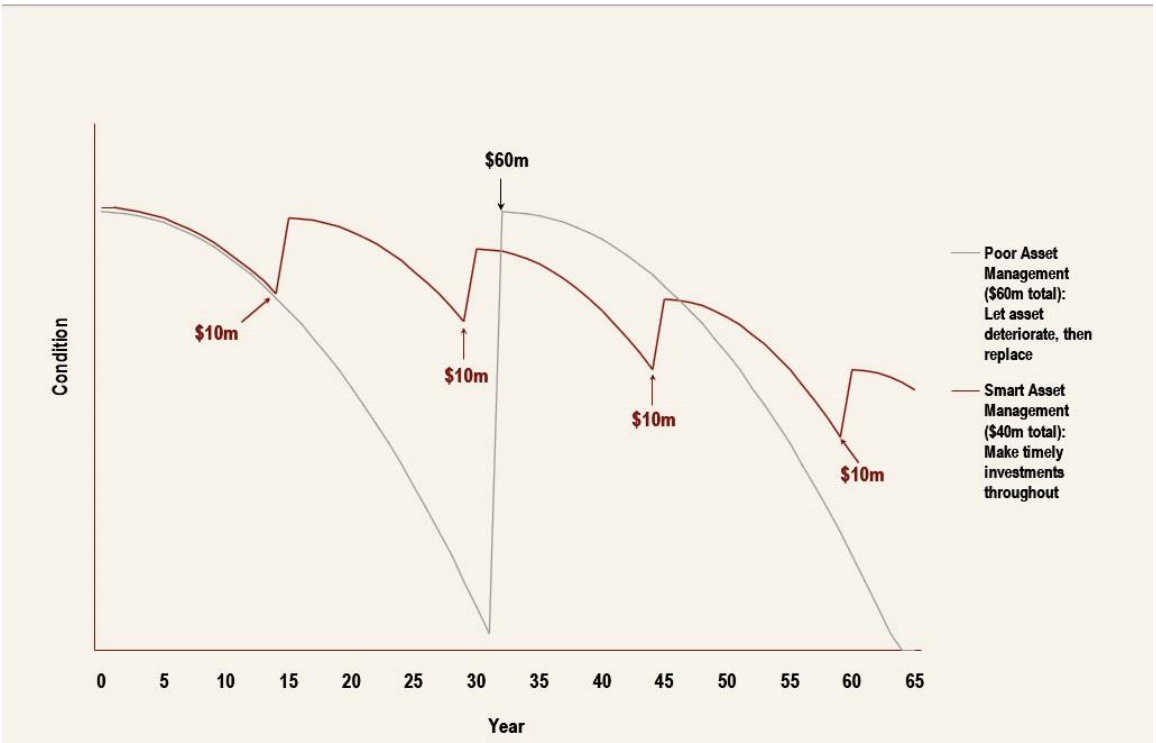


Figure 7: Small but Timely Renewal Investments Save Money (https://files.ontario.ca/figure1-en-v2.jpg)

For a building with a CRV of $60M, regular investments of $10M every 15 years, will maintain the asset in good condition. This amounts to a total of $40M over the typical useful life of a built asset.

Much like what has happened to the Official Residences Portfolio, the long-term costs are much higher when the asset is allowed to completely deteriorate before investing the full replacement value of $60M once, then again letting the asset completely deteriorate over the same amount of time.

Figure 7 shows how much a wise investment of regular maintenance and recapitalization will save taxpayers over time. Regular maintenance and recapitalization will result in a total savings of $20M over the life of a typical real property asset, with a replacement value of $60M.

3 Asset Report Cards

The following section summarizes the present condition of each of the Official Residences managed by the NCC, highlighting their history, the present condition of the assets, recent infrastructure investments, risks of asset failure, and proposed infrastructure investments to maintain or improve building condition and a summary dashboard.

3.1 RIDEAU HALL

3.1.1 Background

Rideau Hall is a National Historic Site of Canada and has been the official residence and workplace of every governor general of Canada since 1867. Traditionally the home and workplace of the Governor General, Rideau Hall has played a prominent historical and constitutional role in Canada since Confederation.

Rideau Hall comprises 32 hectares (79 acres) of grounds, the Main Building with some 175 rooms covering approximately 8,825 m^2 (95,000 ft^2). The site includes 25

outbuildings, many of national heritage significance. A site plan is included in Appendix D.

The Federal Heritage Building Review Office (FHBRO), reviewed the Rideau Hall Main Building, grounds and outbuildings in 1986 and 1987. The following were deemed "Classified":

- Main Building, including the greenhouses;
- Front Gate and Fence (1868 portion); and,
- Grounds.

Today, Rideau Hall, continues to be the Official Residence and official workplace of the Governor General of Canada. It is also the workplace of over 200 employees of the Office of the Secretary to the Governor General (OSGG), the NCC's Official Residences Branch, the RCMP's Governor General's Protection Detail and Prime Minister's Protection Detail and the Governor General's Foot Guards (Canadian Armed Forces).

Averaging 280,000 visits every year, the Rideau Hall site is traditionally open year-round for public visits and tours and is host to hundreds of official events, ceremonies and state visits of world leaders from around the globe.

3.1.2 FHBRO-Recognized Ancillary Buildings

A number of the secondary buildings at the Rideau Hall site were deemed "Recognized" by FHBRO, due to their important historical associations, design qualities, landmark status or environmental significance. Below is a brief description of each of these assets with an accompanying historical and recent photo of each building, to demonstrate how their appearance or function has evolved over time.

3.1.2.1 Rideau Cottage

Built in 1866, it served continuously as the residence of the Secretary to the Governor General until October 2015. Since that time, it has served as the temporary residence

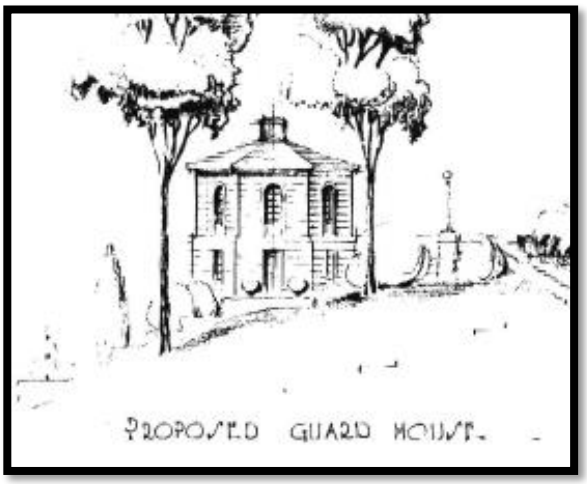
of the Prime Minister of Canada and family. The building underwent an extensive renovation in 2012.

3.1.2.2 The Gate Lodge

Built between 1864 and 1867, this octagonal building is the first that visitors see as they pass through the main gates of the Rideau Hall site. It is used today as administrative space for OSGG staff.

3.1.2.3 The Foot Guard House

Built in 1939 and renovated in 2012, the building is occupied during the summer by the Governor General's Foot Guards.



3.1.2.4 The Stable Building

Built in 1867, it was rehabilitated in 2003 to accommodate OSGG administrative functions.

3.1.2.5 The Dome Building

Originally a "gasometer" built in 1877–78 to store manufactured coal gas to fuel light fixtures in the residence, it was rehabilitated in 2013. The rehabilitation included a three-floor elevator tower and extensive designated substances removal. It is currently used for OSGG administrative functions.

3.1.2.6 The Dairy Building

Built in 1895, it was rehabilitated in 2016 and relocated to the Rideau Hall skating rink area, where it serves as a Skating Pavilion, offering an area for skaters to change in the winter and as a meeting space during the remainder of the year.

3.1.3 History

Thomas MacKay built the original stone villa in 1838, as a home for his family, which now forms the main part of the Official Residence. MacKay was a stonemason and contractor who built the entrance locks of the Rideau Canal and the mills at Rideau Falls, the landmark after which Rideau Hall was named. It has been home to every Governor General since Confederation. Period photographs show it as a rectangular, three-storey stone villa, with a semicircular facade facing the garden.

In 1865, the house was leased to the Canadian government as a residence for The Viscount Monck, 21st Governor General of British North America, who became Canada's first Governor General. That same year, Lord Monck added a long, two-storey wing and also laid out the formal path that leads to the front of the house.

In 1868, the year after Confederation, the Government of Canada purchased the house and grounds for $82,000 and declared it an official residence for Canada's governors general.

In the time of Canada's third Governor General, Lord Dufferin (1872–1878), the Ballroom and the Tent Room were built as wings on either side of the front entrance. The Tent Room was originally designed as both an indoor tennis court and reception room. Both rooms are now used for official and ceremonial functions.

The Minto Wing was added in 1899 to supply more living space. The Governor General's study, with its window overlooking the gardens, was built in 1906, during the mandate of Earl Grey (1904–1911).

Many changes were made during the tenure of the Duke of Connaught (1911–1916). In 1913, work was completed on the interior entrance hall and the present front entrance. The massive motif of the Royal Arms, visible from the driveway, is said to be one of the largest in the world. Also in 1913, the Long Gallery was added and the Dining Room was enlarged. Concerned about the lack of sunlight in the residence, the Duke had many of the fir trees on the grounds replaced with maples and other species.

Over the years, various changes have been made to the stately building to meet the demands of modern times, including media and security requirements. The grounds, the building and its interiors have also evolved to better reflect and reinforce Rideau Hall's identity as Canada's national home.

3.1.4 Present Condition

The Main Residence has an FCI of 0.07 (DFRP Rating = Fair) and is considered a high priority building, with an API score of 77. Given its current condition and API, it is important to perform both minor operations and maintenance projects, as well as major rehabilitation work, of various systems and areas.

RIDEAU HALL ESTATE	YEAR BUILT	AREA (M2)	DM ($000)	CRV ($000)	FCI (DM/CRV)	API
Main Residence	1838	9,468	31,078	454,464	0.07	77
Gate Lodge	1867	187	402	3,179	0.13	62
Ceremonial Greenhouse #1	1923	285	308	1,625	0.19	57
Rideau Cottage	1867	931	188	15,827	0.01	52
15 & 17 Lisgar	1912	300	510	5,100	0.10	50
9 & 11 Lisgar	1867	303	1,056	5,151	0.21	48
Visitor Centre	1864	306	132	5,202	0.03	43
NCC Administration Office – Under construction	2020	2,013	-	8,875	0.00	42
Taxi Stand	1940	32	104	544	0.19	41
Palmhouse #2	1925	110	279	933	0.30	40
Tennis Pavilion	1929	38	89	323	0.28	38
Central Heating Plant	1973	284	207	3,124	0.07	38
Stable Building	1864	962	204	10,582	0.02	37
Dairy Building (Skating Pavilion)	1894	80	7	1,120	0.01	37
Foot Guard House	1939	56	25	952	0.03	35
Dome Building	1877	424	88	4,664	0.02	34

Official Car Garage – New 2017	1911	550	25	7,700	0.00	34
Greenhouse Mechanical Room	1910	70	64	770	0.08	33
Rideau Hall Pump House (Governors' Bay)	1980	11	31	120	0.26	30
Production GH # 3 and #4	1938	288	391	1,642	0.24	30
Production GH # 5, #6 and #7	1938	372	363	2,120	0.17	30
Production GH # 8	1980	35	29	197	0.15	30
Cold Room	1960	465	127	488	0.26	28
Root Cellar	1910	126	60	718	0.08	28
Wood Shed	1950	19	31	53	0.58	23
Rideau Hall Tool Shed	2000	10	9	11	0.85	15

Table 3: Summary of current condition of Rideau Hall site buildings

3.1.5 Historical Investments

Since 1988, development plans, supported by asset condition reports, for both the buildings and grounds have been completed and several upgrades have been made.

Projects such as the replacement of central chillers and steam boilers, envelope improvements, roof replacements, as well as rehabilitation and repurposing of heritage buildings have been completed as part of this renovation program. Investigations to ensure site reliability have also been completed, for example a 2013, third party study assessed the underground water network at the site as being in good condition with a 2013 replacement value estimated at $982K.

Below, a more comprehensive list of the rehabilitation initiatives undertaken since 2005 to the Main Building, ancillary building(s), and grounds is shown.

ASSET ELEMENT	MAJOR REHABILITATION PROJECTS
Exterior Systems	• **Front Façade** Rehabilitation (restoration of **Mappin Wing** stone façade) • Exterior Envelope Rehabilitation – Wall Assembly (Ballroom, Tent Room) • Roofs Rehabilitation – Mappin Wing, Tent Room, Ballroom (new copper roofs c/w insulation, heating cables, gutters and downspouts) • **Dining Room** – Roof replacement • **Princess Anne Entrance** – Roof replacement • **Admin Building –** Roof replacement • **Ambassadors' Court –** Foundation damp proofing
Mechanical/Electrical Systems	• **Ballroom and Mappin Wing** – Air conditioning (installation of a new central system) • **Admin Wing** (hot water heating controls) • Replacement of fire suppression sprinkler heads and correction of system deficiencies

	• **Hospitality Wing** (fan coil replacement) • Geothermal heating and cooling system (replacement of air-cooled chillers) • **Main Kitchen** (replacement of steam kettle, convection steamer, and grease traps) • Handicap Lift (controller upgrade) • Recommissioning of HVAC systems • Replacement of monitoring station for fire protection system • Replacement of main steam pressure reducing valve • Upgrade to Siemens building automation system • Domestic hot water system upgrade • **Monck Wing** – Attic HVAC (geothermal glycol line extension) • Replacement of the underground glycol lines near the PA entrance • Conversion of heating system from steam to hot water
Interior Architectural	• **Private Quarters** – Upgrades (life cycle upgrades to bathrooms, new kitchenette, floor refinishing and interior elements) • **Ball Room –** Plaster stabilization and media light replacement • **Tent Room** – Interior rehab (new fabric, fire detection/suppression, sound system) • **Monck Wing Attic** – Hazardous materials removal • **Front Entrance** Handrails • **Mappin Wing** and **Monck Wing –** Fire stopping project • **Main Laundry** – Replace commercial laundry equipment • **Cafeteria** – Rehabilitation • **Monck Wing** – Basement (hazardous material removal, pouring of slab, masonry work) • **Servery** – Kitchen equipment (replacement of equipment) • **Monck Wing** – 2nd floor bathroom (expansion and rehabilitation of fixtures/finishes) • **Admin Building –** Staff washroom rehabilitation
Ancillary Buildings	• **Rideau Cottage rehabilitation** Significant upgrades to exterior envelope, interior finishes and mechanical/electrical systems • **Stable Building** Replacement of potable water service piping Recommissioning of HVAC System Conversion of heating system from steam to hot water) • **Dome Building** – Complete rehabilitation and addition • **Dairy Building –** Rehabilitation into Winter Pavilion • **Central Heating Plant** Main electrical board replacement Conversion of heating system from steam to hot water replacement of electrical vault doors • **Ceremonial Greenhouses** Full heritage restoration of Greenhouse 2 and life cycle upgrades for Greenhouse 1 Conversion of heating system from steam to hot water • **Greenhouses 3, 4, 5, and 6** Replacement of side vents Asbestos transited panel table removal and replacement Conversion of heating system from steam to hot water • **Visitor Centre** – Exterior envelope and interior rehab

	(roof, windows restoration, exterior walls, floors, heating and air conditioning, washrooms) • **Footguard House** Full exterior envelope, mechanical/electrical and interior fit-up • **Ground Source Mechanical Room** (new construction as addition to the Footguard House to house Geothermal mech. equipment) • **Ice House, NCC Garage, NCC Grounds Administration** Demolition of buildings as Part of Phase 1 of Operation Zone Redevelopment
Infrastructure and Grounds	• Perimeter fence (restoration of small portions along Rideau Gate, Thomas Street, and a section along Princess Avenue) • Emergency generator (diesel tank replacement and enclosure upgrades) • Front forecourt landscaping (Including replacement of Terry Fox Fountain) • Sanitary sewer realignment

Table 4: Past construction projects at Rideau Hall site buildings

Historical spending for the past 10 years at the entire site, including outbuildings, grounds, and infrastructure, is shown below.

FISCAL YEAR	O & M ($)	CAPITAL ($)	TOTAL ($)
2010–2011	2,132,608	6,653,482	8,786,090
2011–2012	1,697,993	4,152,507	5,850,500
2012–2013	1,639,796	6,180,109	7,819,905
2013–2014	2,205,134	4,142,349	6,347,483
2014–2015	1,891,026	1,739,287	3,630,313
2015–2016	2,507,491	5,492,012	7,999,503
2016–2017	1,804,731	9,663,652	11,468,383
2017–2018	1,395,329	6,031,564	7,426,893
2018–2019	1,661,876	2,157,344	3,819,220
2019–2020	1,676,383	2,356,882	4,033,265
TOTAL ($)	**18,612,367**	**48,569,188**	**67,181,555**

Table 5: Historical spending at Rideau Hall site

3.1.6 Proposed Deferred Maintenance Investments

The proposed investments in the property over the next 10 years are grouped by building asset type. In general, it is proposed to leverage capital and operations and maintenance (O&M) funding to improve assets that are in Fair-to-Poor condition.

Proposed capital and O&M projects include:

- UA studies and upgrades;
- exterior envelope improvements including wood window replacement and brick/block/stucco repairs;
- foundation and footing work;
- copper roof replacement;
- membrane roof replacement;
- replacement of interior floor finishes;
- replacement of one freight elevator and one passenger elevator;
- replacement of Servery air handling equipment;
- replacement of Tent Room air handling unit;
- upgrades to the building automation system;
- the replacement of electrical wiring/panels and lighting fixtures;
- the replacement of the fire alarm system; and,
- the replacement of hardwood flooring.

3.1.7 Summary

The following dashboard highlights the performance gap between the NCC's Management Principles and the current condition of the Main Residence. Also shown is the deferred maintenance deficit and historical investments for the Main Building only.

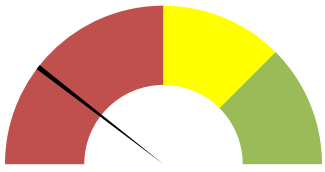
RIDEAU HALL - MAIN BUILDING

YEAR BUILT :	1838	FCI :	0.07	Fair	DEFERRED MAINTENANCE:	$ 31.08	M
AREA (m2) :	9,468	API :	77	(HIGH PRIORITY)	CRV :	$ 454.46	M

MANAGEMENT PRINCIPLES	CURRENT STATUS	NEXT STEPS
Planning		
Does the residence have a Life Cycle Management Plan in place? Emergency Response Plan? O&M and Capital Plan?	- Asset Management Plan being developped. - Emergency Response Plan in place. - Capital planning done on 5-year cycles. O&M planning on yearly cycle.	- Create Life Cycle Management Plan - Integrate Capital and O&M planning into Life Cycle Management Plan.
Heritage Preservation		
Are FHBRO defined heritage characteristics maintained?	- Heritage characteristics maintained.	- None
Building Systems		
Are mechanical and electrical systems modernized and upgraded to current standards?	- Hot water boilers replaced 2016 - Geothermal installed 2013. - Electrical and plumbing systems outdated	- Electrical modernization and piping replacement during major renovations
Universally Accessible		
All grounds and residences shall be univerally accessible	- UA issues include multiple non-compliant lifts and ramps for access to entrances and upper levels.	- Finalize UA study
Operational		
Is the building operational and available at all times?	- Building is operational. - Building is made available during negotiated periods.	- Continue working during periods of access
Fire Protection		
Does the building have fire detection and suppression systems?	- Outdated fire suppression system currently being replaced in phases.	- Continue replacement
Business Continuity		
Is the residence equipped with backup systems to permit operation during infrastructure outage?	- Emergency backup system in place.	- Continue maintaining equipment
Appropriately Furnished		
Is the residence furnished and equipped at all times? Are contents inventoried, inspected, and maintained regularly?	- Residence is furnished and contents managed by NCC Interior Design group.	- Continue furnishing and maintaining contents on a regular basis.

INVESTMENTS

O&M 10-Year Average
$1,861,237

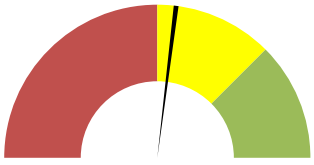


2% of CRV

$9,089,280

O&M Funding
10-Year Average

Capital 10-Year Average
$4,856,919



2% of CRV

$9,089,280

Capital Funding
10-Year Average

3.2 24 SUSSEX DRIVE

3.2.1 Background

The Main Residence at 24 Sussex Drive was built in 1867 and holds a FHBRO "Classified" heritage designation. The site includes 2.15 hectares of grounds, one main building with 34 rooms that covers approximately 1,010 m^2 (~11,000 ft^2), as well as another small home at 10 Sussex Drive, which was originally a coach/caretaker's house (presently, an RCMP detachment), a pool house, and two RCMP guard houses.

The Main Residence is not currently occupied by the Prime Minister of Canada, who now resides on a temporary basis at Rideau Cottage on the grounds of Rideau Hall. However, household staff workspace is still accommodated at the 24 Sussex site. When fully operational, the site is expected to accommodate a permanent detachment of the RCMP, as well as the operational staff.

3.2.2 History

Built in 1866–68 by Joseph Currier, a lumber baron and member of the 1st Dominion Parliament, the main building at 24 Sussex Drive was originally a pleasant Gothic Revival villa. In 1870, a ballroom was added to entertain Prince Arthur, future Duke of Connaught. In 1902, the property was sold to William Cameron Edwards, another lumber manufacturer.

In 1943, the Government began the process of expropriating the house, a process that lasted into 1946 due to the vigorous objections of its then owner, Senator Gordon C. Edwards.

In late 1949, the Government decided to make the house over as the residence of the Prime Minister. To render the house suitable for the Prime Minister, the architects stripped away its Victorian ornament, demolished the tower on the west front and lowered some exterior walls to regularize the massing of the house. In addition, its fenestration was completely altered, and the apparent size was about doubled, all this in the process of rendering the original house quite unrecognizable. The result suggests that the architects were attempting to create a Georgian-style house.

The new house was finished and occupied, reluctantly, by Louis St-Laurent in 1951.

3.2.3 Present Condition

The Main Residence has an FCI of 0.91 (DFRP Rating = Critical) and is considered a very high priority building, with an API score of 97. Given its current condition and API, a major rehabilitation of the Main Residence is recommended.

24 SUSSEX DRIVE	YEAR BUILT	AREA (M2)	DM ($000)	CRV ($000)	FCI (DM/CRV)	API
Main Residence	1867	1,672	36,644	40,128	0.91	97
Caretaker's House	1867	304	2,122	6,388	0.59	82
Pool Building	1975	325	5,709	7,800	0.73	44
East Guard Hut	N/A	N/A	N/A	N/A	N/A	N/A
West Guard Hut	N/A	N/A	N/A	N/A	N/A	N/A

Table 6: Summary of current condition of 24 Sussex site buildings

Currently, there are numerous issues that need to be resolved in the facility, including programmatic operations, building systems, UA and security.

24 Sussex was not purpose-built as a fully functioning official residence, although it is divided into private, office and official space; only 20% of the space at 24 Sussex Drive is designated as "Private" for the Prime Minister and their family. Those areas designated as "state" or "official" spaces are not appropriate in layout or condition to serve official functions. For example, the building has no universally accessible entrances or washrooms, the kitchen is not appropriate to serve official functions, and the dining room is both too large for a family and too small for state or official dinners.

The building systems at 24 Sussex Drive have reached the point of imminent or actual failure and require replacement. The age and condition of the electrical systems poses a fire hazard, and the plumbing systems have failures on a regular basis. The building has no permanent air conditioning system; window air conditioners are run in every room in the summer, which poses a security risk and is disruptive and costly. Repairs and/or upgrades are complicated due to the presence of asbestos, lead and mould throughout many of the interior finishes.

In addition, the threat environment has changed drastically in the world since the last major renovation to the site in 1951. As such, the RCMP has recommended a number of significant security upgrades.

3.2.4 Historical Investments

Since 1988, development plans, supported by asset condition reports, for both the building and grounds have been completed and several upgrades have been made.

Projects such as the stabilization of the escarpment, electrical system repairs, roof repairs, and regular decorative upgrades to state areas have been completed as part of this renovation program. Below, a more comprehensive list of the rehabilitation initiatives undertaken since 2005 to the main building, ancillary building(s), and grounds is shown.

ASSET ELEMENT	MAJOR REHABILITATION PROJECTS
Exterior Systems	• Family room windows (replacement) • Masonry stabilization
Mechanical/Electrical Systems	• Chimney rehabilitation • Various mechanical and electrical improvement projects
Interior Architectural	• Fire compartmentalization of boiler room, east and west stairs • 3rd floor private quarters (life cycle renewal of finishes, including flooring, paint, light fixtures) • Minor hazardous material removal
Ancillary Buildings	• **10 Sussex** Relocation of NG meter Replacement of furnace • **Pool house** Pool dehumidification Replacement of steam sauna equipment
Infrastructure and Grounds	• Escarpment stabilization • Rehabilitation of emergency generator • Minor updates to escarpment catwalk

Table 7: Past construction projects at 24 Sussex site buildings

Historical spending for the past 10 years at the entire site, including outbuildings, grounds, and infrastructure, is shown below.

FISCAL YEAR	O & M ($)	CAPITAL ($)	TOTAL ($)
2010–2011	219,183	410,574	629,757
2011–2012	203,380	345,919	549,299
2012–2013	323,096	661,506*	984,602
2013–2014	236,667	1,453,122*	1,689,789
2014–2015	200,859	15,711	216,570
2015–2016	272,303	0	272,303
2016–2017	546,828	6,632	553,460
2017–2018	299,278	0	299,278
2018–2019	145,505	0	145,505
2019–2020	84,148	0	84,148
TOTAL ($)	**2,531,247**	**2,893,464**	**5,424,711**

* 95% of capital spending in these years on site infrastructure improvements.

Table 8: Historical spending at 24 Sussex site

3.2.5 Needed Recapitalization

24 Sussex Drive has not seen significant investment in over 60 years, and it requires extensive and urgent repair. All buildings on the site require major interventions and recapitalization.

Proceeding with construction activities on the Main Residence would first require the abatement of hazardous materials, including asbestos, lead and mould, and examining the possible retention of certain heritage components. At a minimum improvements are needed to the building envelope, complete replacement of mechanical and electrical systems, construction of universally accessible entrances and washrooms, creation of dining and event facilities and support spaces to accommodate state and official functions.

The Pool Building also requires a new building envelope (walls, windows, doors, roof and skylight) as the current building envelope is rotting and contains mould due to high interior humidity levels.

The Caretaker's House (10 Sussex) is also in "Critical" condition and needs extensive recapitalization.

3.2.6 Summary

The following dashboard highlights the performance gap between the NCC's Management Principles and the current condition of the Main Residence. Also shown

is the deferred maintenance deficit and historical investments for the Main Residence only.

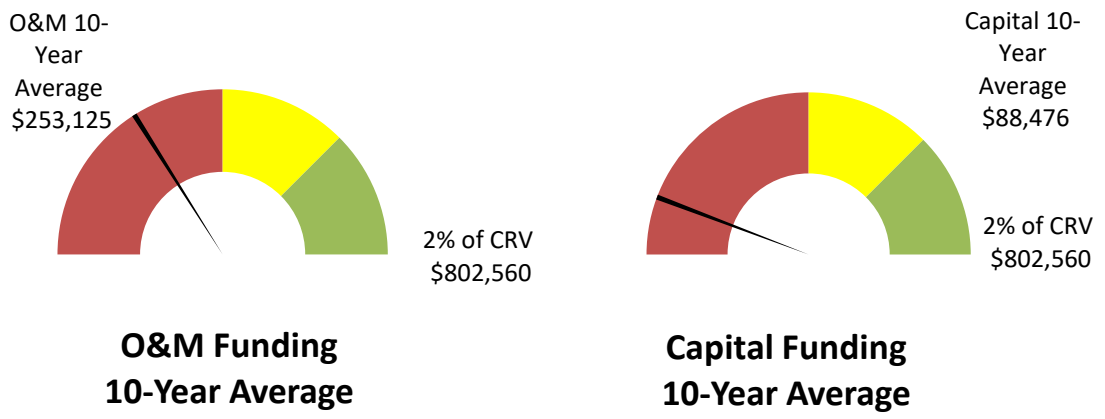
24 SUSSEX - MAIN RESIDENCE

YEAR BUILT :	1867	FCI :	0.91	Critical	DEFERRED MAINTENANCE: $ 36.64 M*
AREA (m2) :	1,672	API :	97	(VERY HIGH PRIORITY)	CRV : $ 40.13 M*

*Does not include security, grounds, pool, or site infrastructure

MANAGEMENT PRINCIPLES		CURRENT STATUS	NEXT STEPS
Planning			
Does the residence have a Life Cycle Management Plan in place? Emergency Response Plan? O&M and Capital Plan?	▲	- Asset Management Plan being developped. - Emergency Response Plan in place. - Capital planning done on 5-year cycles. O&M planning on yearly cycle.	- Create Life Cycle Management Plan - Integrate Capital and O&M planning into Life Cycle Management Plan.
Heritage Preservation			
Are FHBRO defined heritage characteristics maintained?	◆	- Internal heritage characteristics maintained but exterior envelope detoriating.	- Building recapitalization to include heritage preservation assessment.
Building Systems			
Are mechanical and electrical systems modernized and upgraded to current standards?	◆	- Hot water boilers end of life - No centralized air conditioning - Electrical and plumbing systems end of life	- Building recapitalization to include full electrical modernization and mechanical systems replacement
Universally Accessible			
All grounds and residences shall be univerally accessible	◆	- UA issues include front and back entrance, elevator not accessible, staff level, washrooms, and bedrooms	- Building recapitalization to include full UA study
Operational			
Is the building operational and available at all times?	◆	- Building cannot currently act as a residence. - Building is made available during negotiated periods.	- Building requires full recapitalization
Fire Protection			
Does the building have fire detection and suppression systems	◆	- No fire suppression system	- Building recapitalization to include full fire detection and suppression modernization.
Business Continuity			
Is the residence equipped with backup systems to permit operation during infrastructure outage?	▲	- Emergency backup system in place. - Generator nearing end of life	- Continue maintaining equipment and modernize as part of building recapitalization.
Appropriately Furnished			
Is the residence furnished and equipped at all times? Are contents inventoried, inspected, and maintained regularly?	▲	- Residence is not currently furnished. Contents managed by NCC Interior Design group.	- Ensure furnishings are properly maintained off site until building is recapitalized and occupied.

INVESTMENTS



3.3 HARRINGTON LAKE

3.3.1 Background

The main area of Harrington Lake (known in French as Lac Mousseau) comprises 5.4 hectares (13 acres) of grounds, one Main Cottage with 16 rooms covering approximately 771 m^2 (8,300 ft^2), plus 10 ancillary buildings. Inside the Gatineau Park boundaries, located in Pontiac, Quebec, the Main Cottage has received the "Recognized" heritage designation from FHBRO.

The site is for use by the Prime Minister and their family, throughout the year, for both official and private purposes.

It is not open to the public.

3.3.2 History

The Main Cottage at Harrington Lake is a typical country house in a Twenties Colonial Revival style.

In 1951, about two-thirds of the property belonged to Lt. Col. Cameron Edwards, who had assembled the land over a number of years around a core property, with the intention to set himself up as a gentleman farmer. He built the main house in 1925 as his country home and farmhouse. Further evidence of his agricultural intent is provided by the experimental precast concrete barn he built in 1929, which is now used for storage.

The remaining third of the property was acquired from the Honourable William Herridge, who had held the land from the early twenties. Until his death in 1961, he retained the use and enjoyment of a winterized log cabin (now a way station on the Gatineau Park cross-country ski trail), a summer cottage (now the Upper Guest Cottage) and a boat house (demolished in 2018).

The property was acquired in 1951 as part of the federal program to develop Gatineau Park. On June 6, 1959, it became the official country residence of the Prime Minister of Canada.

3.3.3 Present Condition

The Main Cottage, which has an API of 66 and is therefore considered a high priority building, is currently undergoing a major building envelope rehabilitation project that includes window replacement, the addition of wall insulation, rebuild of the two masonry chimneys, upgrades to the HVAC and fire suppression systems, and improvements to the service wing. The project is expected to be complete during the summer of 2021.

The residence was re-evaluated prior to the start of the project and an FCI of 0.27 was calculated (DFRP Rating = Poor). Following completion of the project the residence is expected to be in "Fair" condition as significant additional interior work has been deferred, along with other investments such a complete renovation of interior finishes, electrical system, plumbing and the hot water heating distribution system, which would all be required to reach a classification of "Good".

HARRINGTON LAKE – LAC MOUSSEAU	YEAR BUILT	AREA (M2)	DM ($000)	CRV ($000)	FCI (DM/CRV)	API
Main Cottage	1925	771	1,157	16,195	0.07	85
Upper Guest Cottage	1925	85	372	935	0.40	63
Horse & Cattle Barn	1900	177	245	1,503	0.16	55
Official Car Garage	1980	38	56	217	0.26	45
Garage & Shop	1925	77	98	216	0.45	35
Dairy House	1900	34	36	95	0.38	35
Change House	1960	23	82	133	0.61	33
Generator Shed	1980	18	7	154	0.05	30
Tool Shed	1960	19	26	53	0.49	30
Pump Shed	1970	30	32	85	0.38	30
Farmhouse	2019	450	0	2,700	0.00	15

Table 9: Summary of current condition of Harrington Lake site buildings

Prior to this current project, the last significant work was undertaken in 2005 and consisted of minor improvements to the electrical system, installation of a sprinkler system, reroofing, and rehabilitation of the sunroom. Due to budget and scheduling limitations, several deficiencies that needed to be addressed had to be deferred and were not completed.

3.3.4 Historical Investments

Since 1988, development plans, supported by asset condition reports, for both the building and grounds have been completed and several upgrades have been made.

Projects such as the replacement of the septic tank, rehabilitation of the shoreline, an upgrade to potable water treatment systems, minor electrical system repairs, roof repairs and regular decorative upgrades to state and official areas have been completed as part of this renovation program. Below, a more complete list of the rehabilitation initiatives undertaken since 2005 to the Main Cottage, ancillary building(s), and grounds is shown.

ASSET ELEMENT	MAJOR REHABILITATION PROJECTS
Exterior Systems	• Roof and eavestrough replacement (cedar shingles, heating cables and copper eavestrough and downpipes) • Select foundation damp proofing • Porch rehabilitation • Design for exterior envelope rehab (window restoration, walls/insulation, foundation damp proofing)
Mechanical/Electrical Systems	• Chimney rehabilitation • Minor electrical wiring replacement • Fire suppression and detection installation • Potable water treatment system upgrade
Interior Architectural	• New interior fire exit stairs (2nd floor to exterior) • Private area and state area decor upgrades • Sunroom replacement • UA strategy (complete investigation and research)
Ancillary Buildings	• Outbuildings study (Investigation and research on condition of Upper/Lower Guest Cottages, Staff Cottages and storage barns) • Demolition of the Lower Guest Cottage due to instability and health and safety • Caretaker's House rehabilitation into the Farmhouse
Infrastructure and Grounds	• Underground electrical service (site distribution upgrade) • UA ramp and landscaping upgrades • Emergency generator replacement • Shoreline rehabilitation (naturalization of the shoreline, rehabilitation of docks, walkways, patios and beach area) • Replace septic system diverter box • Septic system reservoir replacement (including separation of water softening backwash from sanitary)

Table 10: Past construction projects at Harrington Lake site buildings.

Historical spending for the past 10 years at the entire site, including outbuildings, grounds, and infrastructure, is shown below.

FISCAL YEAR	O & M ($)	CAPITAL ($)	TOTAL ($)
2010–2011	161,269	173,505	334,774
2011–2012	187,725	312,610	500,335
2012–2013	181,554	415,035	596,589
2013–2014	109,337	186,957	296,294
2014–2015	224,225	2,154	226,379
2015–2016	243,650	-	243,650
2016–2017	290,854	137,000	427,854
2017–2018	251,128	373,832	624,960
2018–2019	74,934	1,349,528	1,424,462
2019–2020	147,098	3,416,196	3,563,294
TOTAL ($)	**1,871,774**	**6,366,817**	**8,238,591**

Table 11: Historical capital and O&M spending at Harrington Lake site.
Table does not include RCMP security improvements

3.3.5 Proposed Deferred Maintenance Investments

The Main Cottage is currently undergoing a major rehabilitation project which includes a complete building envelope rehabilitation, various upgrades to some of the building's systems, and improvements to the service wing. It is expected to be completed during summer of 2021.

Following this project, the Main Cottage is expected to be in "Fair" condition. Additional capital investments will be required to complete the replacement of various interior finishes in poor condition, as well as the electrical system, plumbing and hot water heating distribution system.

Still outstanding are UA upgrades to the Main Cottage.

Because of its "Critical" condition, the Caretaker's House was dismantled, and rebuilt into the Farmhouse at a new location on the property. The building includes many modern amenities and has a first floor that provides UA. Similarly, the Lower Guest Cottage was also in "Critical" condition. Due to the building's deteriorated state and the limited options for rehabilitation, the building was demolished in 2018.

3.3.6 Summary

The following dashboard highlights the performance gap between the NCC's Management Principles and the current condition of the Main Cottage. Also shown is the deferred maintenance deficit and historical investments for the Main Cottage only.

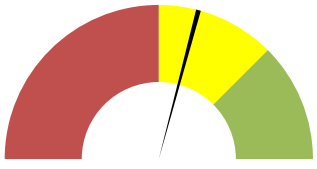
HARRINGTON LAKE - MAIN RESIDENCE

YEAR BUILT :	1925	FCI :	0.07	Fair	DEFERRED MAINTENANCE:	$ 1.16	M
AREA (m2) :	771	API :	66	(HIGH PRIORITY)	CRV :	$ 16.20	M

MANAGEMENT PRINCIPLES	CURRENT STATUS	NEXT STEPS
Planning		
Does the residence have a Life Cycle Management Plan in place? Emergency Response Plan? O&M and Capital Plan?	- Asset Management Plan being developped. - Emergency Response Plan in place. - Capital planning done on 5-year cycles. O&M planning on yearly cycle.	- Create Life Cycle Management Plan - Integrate Capital and O&M planning into Life Cycle Management Plan.
Heritage Preservation		
Are FHBRO defined heritage characteristics maintained?	- Heritage characteristics maintained.	- None
Building Systems		
Are mechanical and electrical systems modernized and upgraded to current standards?	- Forced air system has been upgraded and is in good condition. - Interior finishes, electrical, plumbing and hot water heating distribution systems are at end of useful life.	- Major systems and interior finishes rehabilitation project. - Electrical rationalization project
Universally Accessible		
All grounds and residences shall be univerally accessible	- UA issues throughout the house and property.	- UA study
Operational		
Is the building operational and available at all times?	- Building is operational. - Building is made available during negotiated periods.	- Continue working during periods of access
Fire Protection		
Does the building have fire detection and suppression systems?	- Fire detection and protection systems were upgraded and are in good condition.	- Perform regular O&M repairs as required. - Underground water storage reservoirs remain to be installed.
Business Continuity		
Is the residence equipped with backup systems to permit operation during infrastructure outage?	- Emergency backup system in place.	- Continue maintaining equipment
Appropriately Furnished		
Is the residence furnished and equipped at all times? Are contents inventoried, inspected, and maintained regularly?	- Residence is furnished and contents managed by NCC Interior Design group.	- Continue furnishing and maintaining contents on a regular basis.

INVESTMENTS

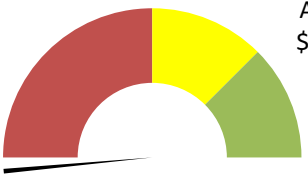
O&M 10-Year Average $187,177



2% of CRV $323,904

O&M Funding 10-Year Average

Capital 10-Year Average $636,682



2% of CRV $323,904

Capital Funding 10-Year Average

3.4 STORNOWAY

3.4.1 Background

Located at 541 Acacia Avenue in Ottawa, Ontario, Stornoway holds a FHBRO "Recognized" heritage designation and was built in 1913. The property comprises over 0.42 hectares (one acre) of grounds, one main building with 19 main rooms, hallways and washrooms covering approximately 883 m^2 (9,500 ft^2). The property also includes one secondary building, which is a two-car garage with a second storey loft and two-piece washroom.

The Main Residence is currently occupied by the Leader of the Official Opposition and family and is divided into private and state or official spaces. State areas are generally located on the first and third floors, with the private areas, consisting mostly of bedrooms and washrooms, located on the second floor. The residence functions primarily as a private residence but also hosts official events.

The residence is not open to the public.

3.4.2 History

Stornoway was originally built for an Ottawa grocer in 1913–14. The house was designed by Allen Keefer, an important architect of the era. In 1923, it was purchased by Mr. And Mrs. Irvine Perley-Robertson, who in turn rented it to Crown Princess Juliana of the Netherlands during the Second World War.

In the late 1940s, a trust was set up to purchase and administer the running of the house and was funded by contributions from the public. The house was privately maintained for the Leaders of the Official Opposition until 1970 when the property was acquired by the Government of Canada and maintained by Public Works Canada.

Stornoway is a two-and-a-half storey house in rough-cast stucco. It is rectangular in plan with a small "L" to the rear, covered with a simple saddle-back roof with Bernese gables. The main facade is loosely symmetrical about a central doorway, to which an exterior foyer was added in 1983.

The house is laid out in a pinwheel plan about a large central hall with stairs and is situated behind heavy hedges on the grounds planted in a typical Rockcliffe manner. In addition to a breakfast room and family room, the house contains formal living and dining rooms.

Since 1987, development plans, supported by asset condition reports, for both the building and grounds have been completed and several upgrades have been made. Projects such as the installation of a high-efficiency boiler system and perimeter

lighting, exterior painting, roof replacement and minor foundation repairs, and some decorative upgrades to state areas have been completed as part of this renovation program.

3.4.3 Present Condition

The Main Residence has an FCI of 0.08 (DRFP Rating = Fair) and is considered a high priority building, with an API score of 63.

STORNOWAY	YEAR BUILT	AREA (M2)	DM ($000)	CRV ($000)	FCI (DM/CRV)	API
Main Residence	1913	879	1,252	14,941	0.08	63
Garage	1914	101	154	861	0.18	40

Table 12: Summary of current condition of Stornoway site buildings

The Main Residence requires regular and ongoing maintenance. Currently, there are numerous issues that should be resolved in the residence, including the building envelope, fire alarm, electrical and heating and cooling systems. UA concerns include the ramp to the main entrance that does not meet barrier-free design, staired access to the second and third floors, as well as a stepped entrance to the sunroom.

Stornoway is used as a residence and is provided with adequate heating and cooling equipment that meets the Occupational Health and Safety Directive for Public Service employees. However, the building has no permanent air conditioning system; window air conditioners are run in every room in the summer, which is disruptive, inefficient and costly.

The age and condition of the electrical sub-panels and the associated wiring indicates that it should be upgraded; the plumbing system has failed on multiple occasions in recent years. Repairs and/or upgrades are complicated due to the presence of asbestos throughout many of the interior finishes.

3.4.4 Historical Investments

Since 1988, development plans, supported by asset condition reports, for both the building and grounds have been completed and several upgrades have been made.

Projects such as the installation of a high-efficiency boiler system and perimeter lighting, creation of a universally accessible washroom on the main floor, exterior painting, minor foundation repairs, rehabilitation work to the garage, roof replacement and chimneys repointing and repairs, and some decorative upgrades to state or official areas have been completed as part of this maintenance program.

Below, a more comprehensive list of the rehabilitation initiatives undertaken since 2005 to the main building, ancillary building(s), and grounds is shown.

ASSET ELEMENT	MAJOR REHABILITATION PROJECTS
Exterior Systems	• Front entrance stairs rehabilitation • Front façade storm water management • Backyard deck replacement • Exterior painting • Roof replacement & chimney repointing and repairs
Mechanical/Electrical Systems	• Kitchen HVAC replacement (once-through, water-cooled AC with DX condensing unit) • Electrical single line tracing • Replacement of heating hot water boilers • Replacement of main electrical switch • Replacement of outdoor electrical panel
Interior Architectural	• UA strategy (complete investigation and research) • UA washroom conversion (Main Floor) • Basement laundry room wall repairs
Ancillary Buildings	• Garage envelope rehabilitation (LCM upgrades to envelope and interior) • Garage roof replacement
Infrastructure and Grounds	• Upgrade to main electrical manhole • Asphalt paving • Exterior lighting

Table 13: Summary of current condition of Stornoway site buildings

Historical spending for the past 10 years at the entire site, including outbuildings, grounds, and infrastructure, is shown below.

FISCAL YEAR	O & M ($)	CAPITAL ($)	TOTAL ($)
2010–2011	86,230	-	86,230
2011–2012	116,785	149,533	266,318
2012–2013	101,021	189,843	290,864
2013–2014	105,983	59,950	165,933
2014–2015	54,715	17,838	72,553
2015–2016	75,577	147,381	222,958
2016–2017	71,378	0	71,378
2017–2018	89,037	0	89,037
2018–2019	45,665	84,511	130,176
2019–2020	38,663	2,297	40,960
TOTAL ($)	**785,054**	**651,353**	**1,436,407**

Table 14: Historical spending at Stornoway site

3.4.5 Proposed Deferred Maintenance Investments

The proposed investments in the property over the next years are grouped by building asset type. In general, it is proposed to leverage capital and O&M funding to improve assets that are in Fair-to-Poor condition.

Proposed capital and O&M projects include:

- UA studies and upgrades;
- the replacement of electrical wiring/panels;
- upgrades to the fire alarm system; and
- the replacement of hardwood flooring.

3.4.6 Summary

The following dashboard highlights the performance gap between the NCC's Management Principles and the current condition of the Main Residence. Also shown is the deferred maintenance deficit and historical investments for the Main Residence only.

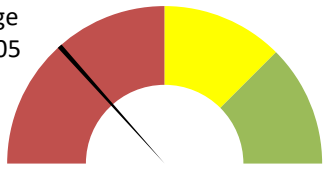
STORNOWAY - MAIN BUILDING

YEAR BUILT :	1913	FCI :	0.08	Fair	DEFERRED MAINTENANCE:	$ 1.25	M
AREA (m2) :	879	API :	63	(HIGH PRIORITY)	CRV :	$ 14.94	M

MANAGEMENT PRINCIPLES	CURRENT STATUS	NEXT STEPS
Planning		
Does the residence have a Life Cycle Management Plan in place? Emergency Response Plan? O&M and Capital Plan?	- Asset Management Plan being developped. - Emergency Response Plan in place. - Capital planning done on 5-year cycles. O&M planning on yearly cycle.	- Create Life Cycle Management Plan - Integrate Capital and O&M planning into Life Cycle Management Plan.
Heritage Preservation		
Are FHBRO defined heritage characteristics maintained?	- Heritage characteristics maintained.	- None
Building Systems		
Are mechanical and electrical systems modernized and upgraded to current standards?	- Hot water boilers replaced 2015 - No ventilation or air conditioning for occupied spaces - Electrical and plumbing systems at end of life	- Major systems replacement. - Installation of ventilation and air conditioning
Universally Accessible		
All grounds and residences shall be univerally accessible	- UA issues include the ramp to the main entrance, staired access to the 2nd and 3rd Floors, as well as a stepped entrance to the sunroom. Ground floor washroom converted to UA	- UA study
Operational		
Is the building operational and available at all times?	- Building is operational. - Building is made available during negotiated periods.	- Continue working during periods of access
Fire Protection		
Does the building have fire detection and suppression systems?	- No fire suppression system - Outdated fire detection system	- Installation of fire suppression system.
Business Continuity		
Is the residence equipped with backup systems to permit operation during infrastructure outage?	- No emergency backup system in place.	- Investigation and report on options for providing emergency backup.
Appropriately Furnished		
Is the residence furnished and equipped at all times? Are contents inventoried, inspected, and maintained regularly?	- Residence is furnished and contents managed by NCC Interior Design group.	- Continue furnishing and maintaining contents on a regular basis.

INVESTMENTS

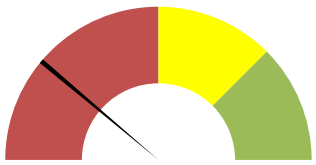
O&M 10-Year Average $78,505



2% of CRV $298,826

O&M Funding 10-Year Average

Capital 10-Year Average $65,135



2% of CRV $298,826

Capital Funding 10-Year Average

3.5 THE FARM

3.5.1 Background

Located at 15 Barnes Road in Chelsea, QC lies the property known as The Farm. The residence, a former farmhouse, comprises more than 1.74 hectares (4 acres) of grounds, one main building with 11 rooms covering approximately 465 m^2 (5,000 ft^2) plus seven outbuildings.

In June 1985, the farmhouse and barn were designated as "recognized" heritage buildings by FHBRO. Today, the historic significance of some of the interior features of the house, including ornamental plaster and woodwork, personally designed by Prime Minister William Lyon Mackenzie King, have been recognized. Some of Mackenzie King's personal possessions are still retained in the house. For example, the dining room contains the mahogany Willingdon Table that was presented to him by the Governor General of Canada, Viscount Willingdon, in 1931.

The Main Residence is currently occupied by the Speaker of the House of Commons and family and is divided into private and state or official spaces. State areas are

generally located on the first floor with the private areas, consisting mostly of bedrooms and washrooms, located on the second floor. The residence functions primarily as a private residence but does host official events.

The residence is not open to the public.

3.5.2 History

The original farmhouse was built about 1891 by the Fleury brothers and was typical of the pioneer homesteads in the Gatineau region. It was a simple one and one-half storey frame building with gables and bay windows facing south. Like most houses of the era, it lacked central heating and plumbing.

Prime Minister William Lyon Mackenzie King purchased the house, and the two-mile stretch of land between Mountain and Barnes roads, for $4,000 on April 12, 1927. In 1935, Mr. MacKenzie King converted the house into a year-round residence. Renovations were fairly modest. Two new L-shaped wings were added—one to the south for living and reception rooms and one to the east for a kitchen and servants' quarters. The character, materials and proportions of the original building were left intact.

The Farm became one of Prime Minister Mackenzie King's favourite residences and in the last 15 years of his life he conducted much of the nation's business there. He bequeathed this extensive property to the Government of Canada upon his death in 1950.

The Farm was apparently offered as a home to Prime Minister Louis St. Laurent and Mr. George Drew, Leader of the Official Opposition, neither of whom chose to occupy it. In 1954, The Farm was rented to the Honourable L. René Beaudoin, then Speaker of the House of Commons, for the sum of $350.00 per year. The practice of renting The Farm to the Speaker of the House of Commons for use as a summer residence continued into the 1970s.

3.5.3 Present Condition

The Main Residence has an FCI of 0.17 (DFRP Rating = Poor) and is considered a high priority building, with an API score of 61. Given its current condition, work required consists of regular and ongoing maintenance.

THE FARM – KINGSMERE	YEAR BUILT	AREA (m^2)	DM ($000)	CRV ($000)	FCI (DM/CRV)	API
Main Residence	1891	464	1,340	7,896	0.17	61
Recreational Building	1891	66	332	561	0.59	47
Generator Shed		15	19	86	0.23	33
Storage Barn	1891	80	35	680	0.05	28
Gazebo		15	11	86	0.13	23
Irrigation System Pump House		10	4	85	0.05	22
Wood Shed	1891	25	83	143	0.58	18
Garage	2005	48	50	271	0.18	15

Table 15: Summary of current condition of The Farm site buildings

Currently, there are numerous issues that need to be resolved in the residence, including the building envelope, fire alarm, and electrical systems. UA concerns include staired access to the 2nd floor, as well as a stepped entrance to the sunroom.

The Farm is used as a residence and is provided with adequate heating and cooling equipment to meet the Occupational Health and Safety Directive for Public Service employees.

The age and condition of the electrical sub-panels and the associated wiring indicates that it should be upgraded; the plumbing system has failed on multiple occasions in recent years. Repairs and/or upgrades are complicated due to the presence of asbestos throughout many of the interior finishes.

3.5.4 Historical Investments

Since 1988, development plans, supported by asset condition reports, for both the building and grounds have been completed and several upgrades have been made.

Projects such as the replacement of the septic field, window rehabilitation, the upgrade to potable water treatment systems, roof repairs, and regular decorative upgrades to State areas have been completed as part of this renovation program. Below, a more comprehensive list of the rehabilitation initiatives undertaken since 2005 to the main building, ancillary building(s), and grounds is shown.

ASSET ELEMENT	MAJOR REHABILITATION PROJECTS
Exterior Systems	• Window rehabilitation (rehabilitation of all windows, storms and screens) • Roof replacement • Pantry exterior siding and door
Mechanical/Electrical Systems	• Potable water (upgrade of the well water supply to the house) • HVAC upgrades (replace aging furnaces and humidifiers with high efficiency system) • Basement sanitary line replacement • Electrical single line tracing • Fire suppression system reservoir and pump replacement
Interior Architectural	• Main floor hardwood refinishing • Chimney rehabilitation (all four chimneys) • UA washroom conversion (Main Floor)
Ancillary Buildings	• Barn | Stabilization (new foundation, new doors, rehabilitated cladding) • Garage | Exterior paint
Infrastructure and Grounds	• Dry stone wall rehab • Terrace rehabilitation (restoration of flagstone patio) • Well pumps (replacement of Pump No.1 and Pump No.2) • Septic field replacement • Underground oil tank decommissioning • Flagpole new underground electrical cables and fixtures | $2.5K

Table 16: Past construction projects at The Farm site buildings

Historical spending for the past 10 years at the entire site, including outbuildings, grounds, and infrastructure, is shown below.

FISCAL YEAR	O & M ($)	CAPITAL ($)	TOTAL ($)
2010–2011	99,803	0	99,803
2011–2012	199,339	460,367	659,706
2012–2013	116,102	61,106	177,208
2013–2014	154,651	89,911	244,562
2014–2015	246,336	173	246,509
2015–2016	96,391	0	96,391
2016–2017	75,371	0	75,371
2017–2018	80,690	3,679	84,369
2018–2019	67,725	190,937	258,662
2019–2020	115,357	0	115,357
TOTAL ($)	**1,251,765**	**806,173**	**2,057,938**

Table 17: Historical spending at The Farm site

3.5.5 Proposed Deferred Maintenance Investments

The proposed investments into the property over the next 10 years are grouped by building asset type. In general, it is proposed to leverage capital and O&M funding to improve assets that are in Fair-to-Poor condition.

Proposed capital and O&M projects include:

- UA studies and upgrades;
- The replacement of some of the roof coverings;
- the replacement of the foundation and repair to exterior walls;
- the replacement of the porch;
- the replacement of air conditioning equipment;
- the replacement of electrical systems and wiring;
- upgrades to the fire alarm system; and,
- the replacement of hardwood flooring.

3.5.6 Summary

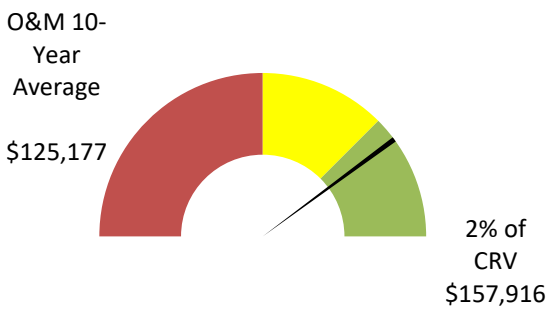
The following dashboard highlights the performance gap between the NCC's Management Principles and the current condition of the Main Residence. Also shown is the deferred maintenance deficit and historical investments for the Main Residence only.

THE FARM - MAIN BUILDING

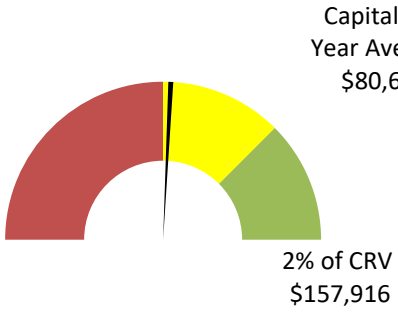
YEAR BUILT :	1891	FCI :	0.17	Poor	DEFERRED MAINTENANCE:	$ 1.34	M
AREA (m2) :	464	API :	61	(HIGH PRIORITY)	CRV :	$ 7.90	M

MANAGEMENT PRINCIPLES	CURRENT STATUS	NEXT STEPS
Planning		
Does the residence have a Life Cycle Management Plan in place? Emergency Response Plan? O&M and Capital Plan?	- Asset Management Plan being developped. - Emergency Response Plan in place. - Capital planning done on 5-year cycles. O&M planning on yearly cycle.	- Create Life Cycle Management Plan - Integrate Capital and O&M planning into Life Cycle Management Plan.
Heritage Preservation		
Are FHBRO defined heritage characteristics maintained?	- Heritage characteristics maintained.	- None
Building Systems		
Are mechanical and electrical systems modernized and upgraded to current standards?	- Three furnaces recently replaced - Electrical and plumbing systems at end of life.	- Electrical modernization and piping replacement during major renovations
Universally Accessible		
All grounds and residences shall be univerally accessible?	- UA issues include staired access to the 2nd Floor, as well as a stepped entrance to the sunroom.	- UA study
Operational		
Is the building operational and available at all times?	- Building is operational. - Building is made available during negotiated periods.	- Continue working during periods of access
Fire Protection		
Does the building have fire detection and suppression systems?	- Attic fire suppression requires replacement to mitigate freezing concerns. Issue currently addressed with regular maintenance.	- Replace attic fire suppression system.
Business Continuity		
Is the residence equipped with backup systems to permit operation during infrastructure outage?	- Emergency backup system in place nearing end of life.	- Continue maintaining equipment
Appropriately Furnished		
Is the residence furnished and equipped at all times? Are contents inventoried, inspected, and maintained regularly?	- Residence is furnished and contents managed by NCC Interior Design group.	- Continue furnishing and maintaining contents on a regular basis.

INVESTMENTS



O&M Funding 10-Year Average



Capital Funding 10-Year Average

3.6 7 RIDEAU GATE

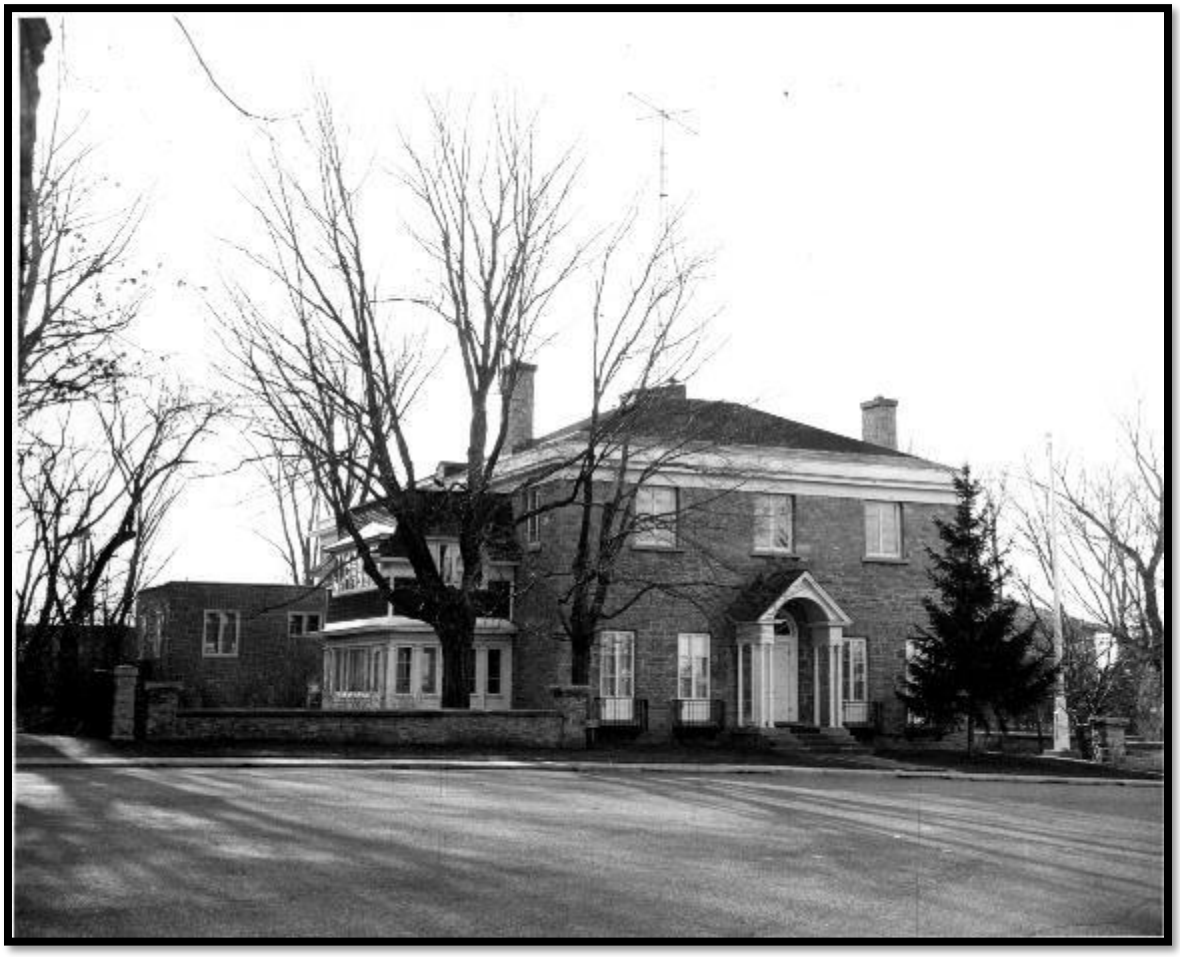
3.6.1 Background

Located between 24 Sussex and Rideau Hall lies 7 Rideau Gate. This building holds a FHBRO "Recognized" heritage designation, comprises a little over 0.2 hectares (0.49 acres) of grounds and one main building covering approximately 797.6 m^2 (8,566 ft^2).

The primary vocation of this Official Residence at 7 Rideau Gate is as a guest house for state and official visitors.

The residence is not open to the public.

3.6.2 History



Designed by architect Alan Keefer, this 790 square-metre private home was built in 1862 and was obtained by the Crown in 1966 as lodgings for visiting dignitaries who are guests of Canada. The Victorian architecture home was restored and renovated in 1989 to reinstate historical features as well as to upgrade the guest facilities.

For its first 70 years, the house remained Victorian in character. In 1947, new owners modernized the house by stripping away the verandas and entirely replacing the dark Victorian decor inside. The last private owner removed the roof walk, added exterior shutters, and built a sunroom on the east side of the original building and a new wing on the west side.

In 1988, the NCC took over responsibility for all Official Residences in Canada's Capital Region. It fully restored and refurnished the house, with the help of the Canadiana Fund, which solicits financial contributions as well as donations of heritage art and furniture. Today, much of the original character and spirit of this historic old house has been recaptured. As well, thanks to the generosity of former

owners, a number of family pieces came back to their old home at 7 Rideau Gate. The house has been decorated and furnished to create a distinctively Canadian experience for visitors and guests.

3.6.3 Present Condition

The Main Residence has an FCI of 0.1 (DFRP Rating = Fair) and is considered a high priority building, with an API score of 52. Given its current condition, work required consists of regular and ongoing maintenance.

7 RIDEAU GATE	YEAR BUILT	AREA (M2)	DM ($000)	CRV ($000)	FCI (DM/CRV)	API
Main Residence	1862	798	1,410	13,564	0.10	52

Table 18: Summary of current condition of 7 Rideau Gate

There are numerous issues that should be resolved in the residence, including UA, the building envelope and specifically the windows, fire alarm, and heating systems.

UA concerns include that a visitor would be required to climb two (2) steps to reach the front entrance, a step to reach the sunroom, and it is necessary to climb stairs to reach the second and third floor levels. Furthermore, the sole washroom for visitors is located beneath the main staircase and is not universally accessible. To meet the requirements for a visitable dwelling, the front entrance would need to be modified and a washroom with a clear route to the toilet at least 920 mm wide would need to be provided.

As 7 Rideau Gate is primarily used to accommodate visiting dignitaries for overnight stays, consideration should be given to providing a universally accessible bedroom on the ground floor or providing barrier-free access to the second level.

7 Rideau Gate is provided with adequate heating and cooling equipment to meet the Occupational Health and Safety Directive for Public Service employees. The building was recently upgraded with central air conditioning. Previously, window air conditioners were active in every room in the summer, which was disruptive, inefficient and costly. The age and condition of the hot water boilers and accessories indicate that these systems should be upgraded; the plumbing system has failed on multiple occasions in recent years. Repairs and/or upgrades are complicated due to the presence of asbestos in some of the interior finishes.

In general, the home is occupied on an irregular basis, but used frequently by Global Affairs Canada for different events and functions. In between stays by visiting dignitaries, the home is used frequently for government lunches, dinners, and meetings. This limits repair work to small windows of opportunity during most of the year and requires discussions with federal partners when completing more significant repairs.

3.6.4 Historical Investments

Since 1988, development plans, supported by asset condition reports, for both the building and grounds have been completed and several upgrades have been made.

Projects such as the replacement of the commercial kitchen, provision of air conditioning, and foundation damp proofing have been completed as part of this renovation program. Below, a more comprehensive list of the rehabilitation initiatives undertaken since 2005 to the main building, ancillary building(s), and grounds is shown.

ASSET ELEMENT	MAJOR REHABILITATION PROJECTS
Exterior Systems	• Foundation damp proofing and drainage (NE wall) • Exterior sunroom wall mortar and stairs repairs and replacement • Roof top railing replacement
Mechanical/Electrical Systems	• HVAC upgrades • Upgrades to hot water heating system • Provision of central air conditioning • Replacement of domestic hot water system
Interior Architectural	• Kitchen renovations (new floor, new gas range, ventilation upgrades, new counters, repaint) • Sunroom exterior double doors replacement • Kitchen stainless steel cabinetry • Basement storage room upgrade
Ancillary Buildings	• Not applicable
Infrastructure and Grounds	• Landscape upgrades (rehab of the main patio)

Table 19: Past construction projects at 7 Rideau Gate

Historical spending for the past 10 years at the entire site, including grounds and infrastructure, is shown below.

FISCAL YEAR	O & M ($)	CAPITAL ($)	TOTAL ($)
2010–2011	55,258	0	55,258
2011–2012	58,386	0	58,386
2012–2013	93,786	89,063	182,849
2013–2014	91,130	122,770	213,900
2014–2015	66,813	500,110	566,923
2015–2016	52,498	18,565	71,063
2016–2017	79,717	3,108	82,825
2017–2018	59,899	0	59,899
2018–2019	30,617	0	30,617
2019–2020	70,759	0	70,759
TOTAL ($)	**658,863**	**733,616**	**1,392,479**

Table 20: Historical spending at 7 Rideau Gate site

3.6.5 Proposed Deferred Maintenance Investments

The proposed investments into the property over the next 10 years are grouped by building asset type. In general, it is proposed to leverage capital and O&M funding to improve assets that are in Fair-to-Poor condition.

Proposed capital and O&M projects include:

- UA studies and upgrades;
- the replacement of the heritage windows;
- the replacement of carpeted surfaces;
- the replacement of the hot water boilers and pumps;
- the replacement of domestic hot water heater;
- the replacement of the fire alarm system;
- the repair of roof heat tracing systems;
- upgrades to the lighting and fire alarm system; and
- the addition of an emergency power generator.

3.6.6 Summary

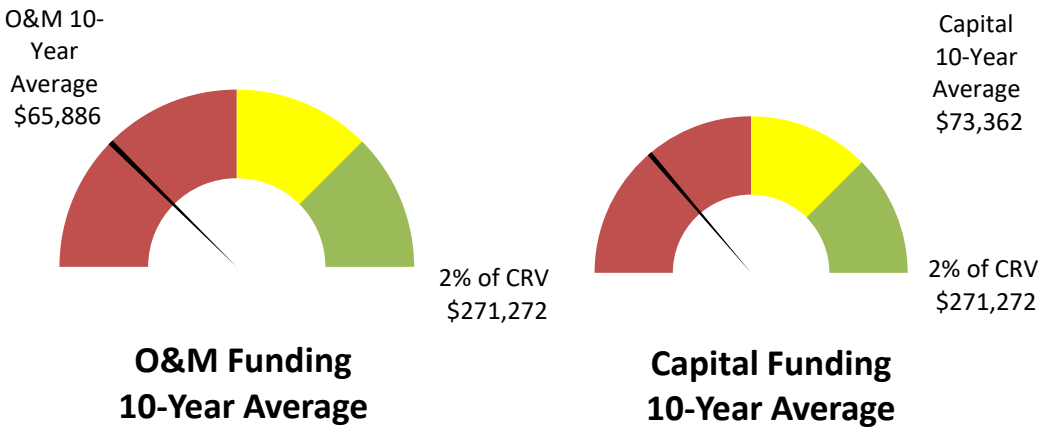
The following dashboard highlights the performance gap between the NCC's Management Principles and the current condition of the Main Residence. Also shown is the deferred maintenance deficit and historical investments for the Main Residence only.

7 RIDEAU GATE - MAIN BUILDING

YEAR BUILT :	1862	FCI :	0.10	Fair	DEFERRED MAINTENANCE:	$ 1.41	M
AREA (m2) :	798	API :	52	(HIGH PRIORITY)	CRV :	$ 13.56	M

MANAGEMENT PRINCIPLES	CURRENT STATUS	NEXT STEPS
Planning		
Does the residence have a Life Cycle Management Plan in place? Emergency Response Plan? O&M and Capital Plan?	- Asset Management Plan being developped. - Emergency Response Plan in place. - Capital planning done on 5-year cycles. O&M planning on yearly cycle.	- Create Life Cycle Management Plan - Integrate Capital and O&M planning into Life Cycle Management Plan.
Heritage Preservation		
Are FHBRO defined heritage characteristics maintained?	- Heritage characteristics maintained.	- None
Building Systems		
Are mechanical and electrical systems modernized and upgraded to current standards?	- Centralized air conditioning installed in 2014 - Hot w ater boilers replaced - Electrical and plumbing systems end of life	- Electrical modernization and piping replacement during major renovations
Universally Accessible		
All grounds and residences shall be univerally accessible?	- UA issues include front entrance, sunroom, ground w ashroom, and stairs to upper levels	- UA study
Operational		
Is the building operational and available at all times?	- Building is operational. - Building is made available during negotiated periods.	- Continue w orking during periods of access
Fire Protection		
Does the building have fire detection and suppression systems?	- No fire suppression system	- Implement design for new fire suppression system
Business Continuity		
Is the residence equipped with backup systems to permit operation during infrastructure outage?	- No emergency backup system in place.	- Investigation and report on options for providing emergency backup.
Appropriately Furnished		
Is the residence furnished and equipped at all times? Are contents inventoried, inspected, and maintained regularly?	- Residence is furnished and contents managed by NCC Interior Design group.	- Continue furnishing and maintaining contents on a regular basis.

INVESTMENTS



4 Summary and Next Steps

Around the world and across Canada, other public institutions have experienced and are experiencing similar challenges with deferred maintenance of built infrastructure and built heritage due to underfunding. The situation may not be unique except that many of the assets in the Official Residences Portfolio, in the fiduciary stewardship of the National Capital Commission, have reached a critical point.

The Official Residences in Canada's Capital Region do not include many of the typical modern amenities many of us take for granted and fall short of current standards for livability. Nonetheless, they have provided the backdrop to our collective history and are home to the stories of generations of leaders who have helped shaped Canada. That makes them national treasures, heritage assets that we can adapt to assist today's leaders in their official duties and provide a safe home for their households while they are in office. To successfully fulfill this mandate, understanding the true condition of these assets allows the NCC to make needed strategic decisions. This includes investing in high priority buildings, to align the Portfolio with its core mission and re-evaluating certain ancillary buildings to better align with long-term objectives.

The NCC receives $66M in ongoing operating appropriations and $23M in annual parliamentary appropriations for capital expenditures. With only $3M in capital dedicated to the Official Residences, the NCC's annual budget falls significantly short and has for decades. Furthermore, because of the age, condition and heritage significance of the Official Residences, the investments required for these properties represent a disproportionate amount of the NCC's already limited resources.

The 2018 Report clearly indicated that without appropriate and sustainable funding, the deferred maintenance deficit would continue to grow, and more assets would resemble 24 Sussex Drive. As forecasted, even with the demolition and rehabilitation of some of the assets in Critical condition, the Portfolio's deferred maintenance has continued to increase and the FCI worsened.

A one-time injection of $175M in funding over 10 years to address the deferred maintenance deficit, support UA and sustainability investments and an increase in annual appropriations to $26.1M would provide a sustainable source of funds that would be used to conserve the built heritage of national interest under the NCC's stewardship.

However, funding is not the only requirement. Predictable and extended access to the buildings is key. Without both a sustainable source of funds and access to the residences to undertake regular repair, maintenance and scheduled capital improvements, the NCC will not be able to fulfill its mandate with respect to the Official Residences.

Appendix A – Official Leaders and Residents of the Official Residences

Rideau Hall

1867–1868	The Viscount Monck
1868–1872	Lord Lisgar
1872–1878	The Earl of Dufferin
1878–1883	The Marquess of Lorne
1883–1888	The Marquess of Lansdowne
1888–1893	Lord Stanley
1893–1898	The Earl of Aberdeen
1898–1904	The Earl of Minto
1904–1911	Earl Grey
1911–1916	The Duke of Connaught
1916–1921	The Duke of Devonshire
1921–1926	Lord Byng of Vimy
1926–1931	The Viscount Willingdon
1931–1935	The Earl of Bessborough
1935–1940	Lord Tweedsmuir
1940–1946	The Earl of Athlone
1946–1952	The Viscount Alexander
1952–1959	The Right Honourable Vincent Massey
1959–1967	General The Right Honourable George P. Vanier
1967–1974	The Right Honourable Roland Michener
1974–1979	The Right Honourable Jules Léger
1979–1984	The Right Honourable Edward Scheyer
1984–1990	The Right Honourable Jeanne Sauvé
1990–1995	The Right Honourable Ramon John Hnatyshyn
1995–1999	The Right Honourable Roméo LeBlanc
1999–2005	The Right Honourable Adrienne Clarkson
2005–2010	The Right Honourable Michaël Jean
2010–2017	The Right Honourable David Johnston
2017–Present	Vacant

24 Sussex

1950–1957	Louis St. Laurent
1957–1963	John Diefenbaker
1963 – 1968	Lester B. Pearson
1968 – 1979	Pierre Trudeau
1979 – 1980	Joe Clark

1980 – 1984	Pierre Trudeau	
1984	John Turner	
1984–1993	Brian Mulroney	
1993–1993	Kim Campbell	
1993 – 2003	Jean Chrétien	
2003 – 2006	Paul Martin	
2006 – 2015	Stephen Harper	
2015–Present	Justin Trudeau**	**Currently residing in Rideau Cottage

Harrington Lake

1950–1957	Louis St. Laurent
1957–1963	John Diefenbaker
1963 – 1968	Lester B. Pearson
1968 – 1979	Pierre Trudeau
1979 – 1980	Joe Clark
1980 – 1984	Pierre Trudeau
1984	John Turner
1984–1993	Brian Mulroney
1993–1993	Kim Campbell
1993 – 2003	Jean Chrétien
2003 – 2006	Paul Martin
2006 – 2015	Stephen Harper
2015–Present	Justin Trudeau

Stornoway

1950–1956	George Drew
1956–1957	John George Diefenbaker
1958–1963	Lester B. Pearson
1963–1967	John George Diefenbaker
1967–1976	Robert Stanfield
1976–1979	Joe Clark
1979–1980	Pierre Elliott Trudeau
1980-1983	Joe Clark
1983–1984	Brian Mulroney
1984–1990	John Napier Turner
1990–1993	Jean Chrétien
1993–1996	Lucien Bouchard
1997–2000	Preston Manning

2000–2001	Stockwell Day
2001–2002	John Reynolds
2002–2006	Stephen Harper
2006–2008	Stéphane Dion
2008–2011	Michael Ignatieff
2011–2011	Jack Layton
2011–2012	Nycole Turmel
2012–2015	Thomas Mulcair
2015–2017	Rona Ambrose
2017–2020	Andrew Scheer
2020–Present	Erin O'Toole

The Farm

1953–1957	Louis-René Beaudoin
1957–1962	Roland Michener
1962–1963	Marcel Lambert
1963–1966	Alan Macnaughton
1966–1974	Lucien Lamoureux
1974–1979	James Alexander Jerome
1980–1984	Jeanne Sauvé
1984–1986	John William Bosley
1986–1994	John Allen Fraser
1994–2001	Gilbert Parent
2001–2011	Peter Miliken
2011–2015	Andrew Scheer
2015–2019	Geoff Regan
2019–Present	Anthony Rota

7 Rideau Gate

The objective of providing the residence at 7 Rideau Gate is to create "a home away from home" for visiting dignitaries in an environment of elegance and comfort. A number of Governors General stay at 7 Rideau Gate before their official mandate begins as Governor General.

Notable guests:

- Princess Margriet of the Netherlands
- Palestinian President Mahmoud Abbas
- Majesties King Hussein and Queen Noor of Jordan
- His Highness Prince Aga Khan
- Prince Takamado and Princess Takamado of Japan
- Princess Astrid and Prince Lorenz from Belgium

- General Perez, President of Pakistan
- President Hamid Karzai from Afghanistan
- Princess Sarah Ferguson from England
- Israel President Shimon Peres

Appendix B — Official Residence Management Principles

- That all the residences are divided into State Areas and Private Areas (allowing for decor planning and expenditure guidelines)
- That all grounds are separated into specific landscape zones (allowing for use, maintenance and intervention guidelines)
- That State Area decor be maintained for a generation before complete redecoration occurs.
- That the heritage characteristics of the properties, as defined by FHBRO, be maintained.
- That all residences have a plan in place covering preferred development strategies for buildings, grounds and infrastructure.
- That all residences have a Life Cycle Management Plan in place.
- That all residences have an Emergency Response Plan in place.
- That all residences must be operational at all times (unless specific arrangements are otherwise made).
- That all grounds and residences be universally accessible (front door access and guest floor access guidelines).
- That all building systems are modernized and upgraded to current standards.
- That all residences provide for fire detection and suppression systems (allowing for the evacuation of the building and the protection of assets).
- That all residences have backup systems to permit the residence to function in case of regular infrastructure outage (e.g., that all residences have an emergency power source available to address life safety, security and functional requirements in case of a power outage).
- That all residences are furnished and equipped at all times.
- That the contents of all residences be inventoried, inspected and maintained regularly.
- That although measures are taken at all residences to protect the state collections and furnishings, the residences cannot be rendered to museum standard.
- That environmentally friendly practices are used in managing the property.

Source: Official Residences in the National Capital Region, Life Cycle Management Program 1999–2009.