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RESERVE FUND STUDY UPDATE WITH SITE VISIT

Carleton Condominium Corporation No. 276

FILE # 1230266
2024-03-01

PROTECTING PEOPLE'S BUILDINGS

Executive Summary

Site inspections and component inventory were performed on November 6, 2023 by

- Jennifer Farquharson, B.A.Sc.Civ.Eng of Keller Engineering

Based on our site inspection as well as the review of past study and the current financial state of the Corporation, we recommend the following work be completed within the next 5 years:

Immediate or Ongoing Work

- Sewer drains minor repairs
- Asphalt pavement repairs
- Siding replacement
- Garage door repairs
- Roofing replacement

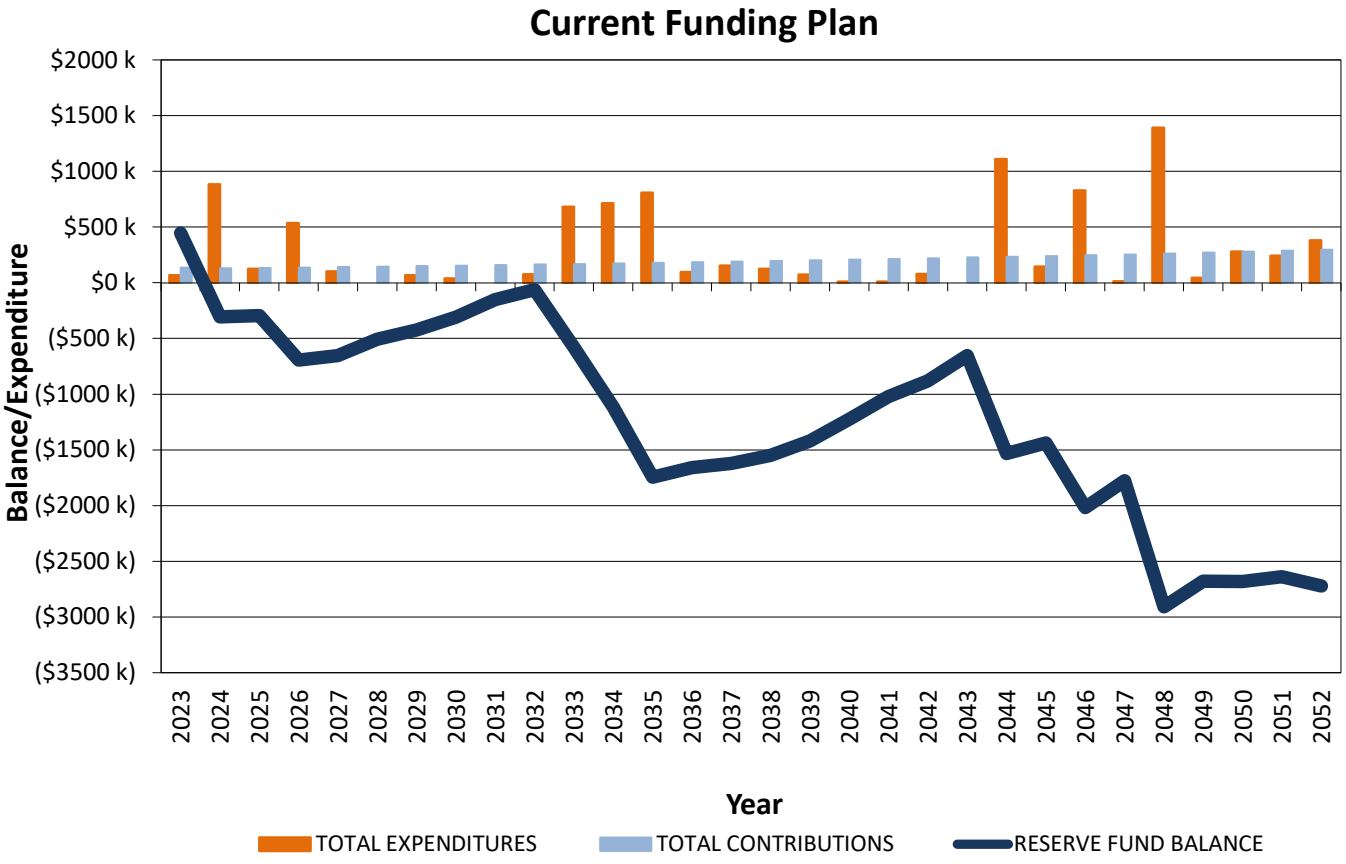
Within the First Three Years of the Study

- Water mains and supply lines, sanitary sewer, and storm sewer investigations and minor repairs
- Asphalt pavement roadways and parking reconstruction
- Cast-in-place concrete curbs replacement
- Asphalt driveway replacement
- Asphalt walkway replacement
- Paver walkway repairs
- Precast concrete stairs repairs and isolated replacements
- Foundation wall repair allowance
- Deck repairs and isolated replacements
- Brick veneer general repairs allowance
- Wood siding repairs allowance
- 3-tab asphalt shingle roof replacement
- Electrical repairs
- Exterior light poles replacement

Within the First Five Years of the Study

- Wood fencing replacement

Based on current funding plan, we are projecting the current 30-year funding model:



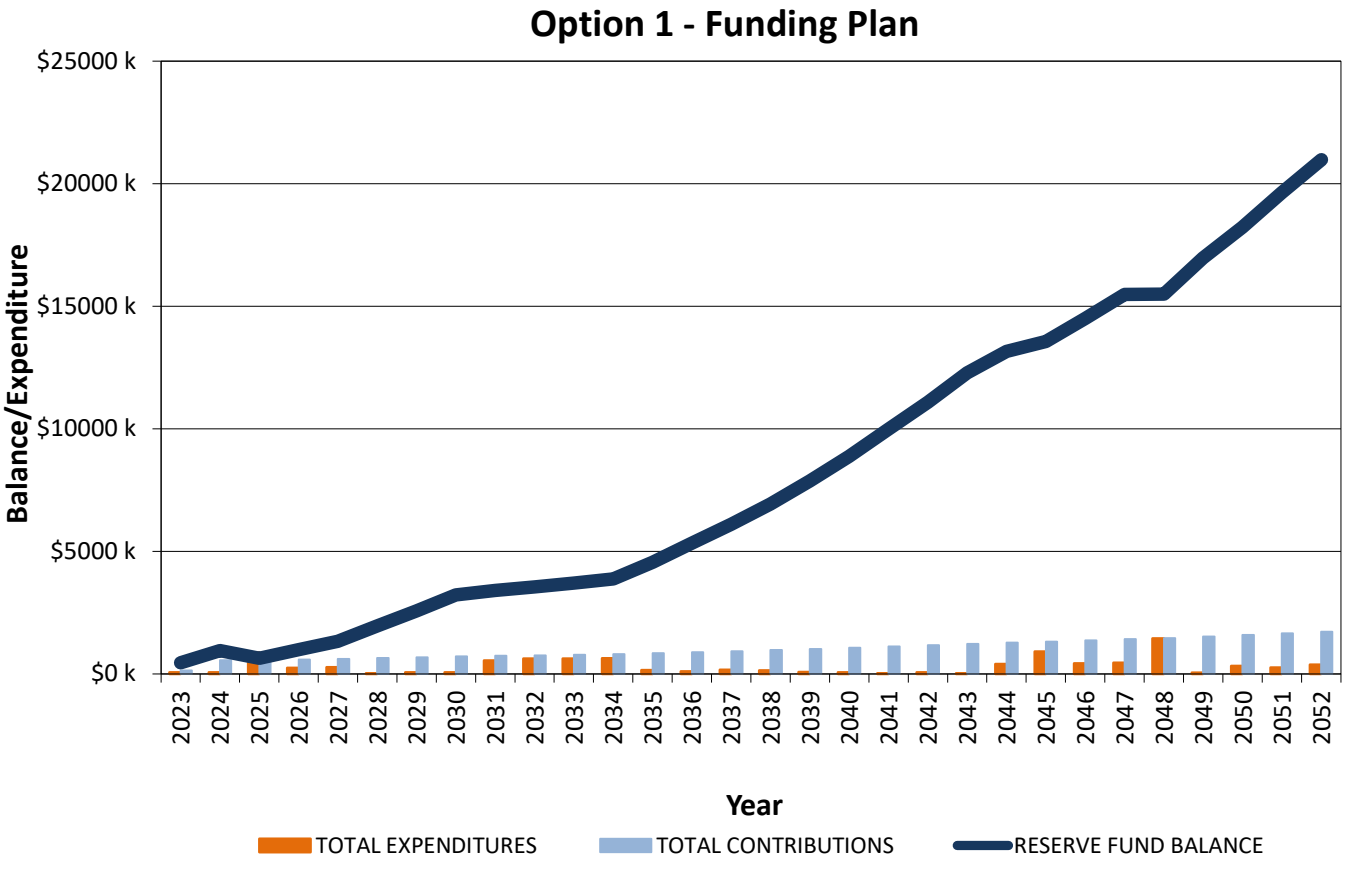
As shown, the current funding model does not adequately provide enough funding to meet all the expected expenditures within the 30-year scope of this study.

The following funding plans have been recommended to the Corporation to ensure the Reserve Fund remains ***adequate*** for the entire 30-year period of this study. They are based on the provided financial information as well as the below assumptions of economic growth and inflation.

Option 1 – 1-Year Contribution Increase

Option 1 eliminates the shortfall by performing an increase to the contributions. At the next fiscal year, the contributions will be increased to the below amount and all following contributions are assumed to increase at a rate that matches inflation. This option ensures the Corporation gets back on track in the quickest period of time.

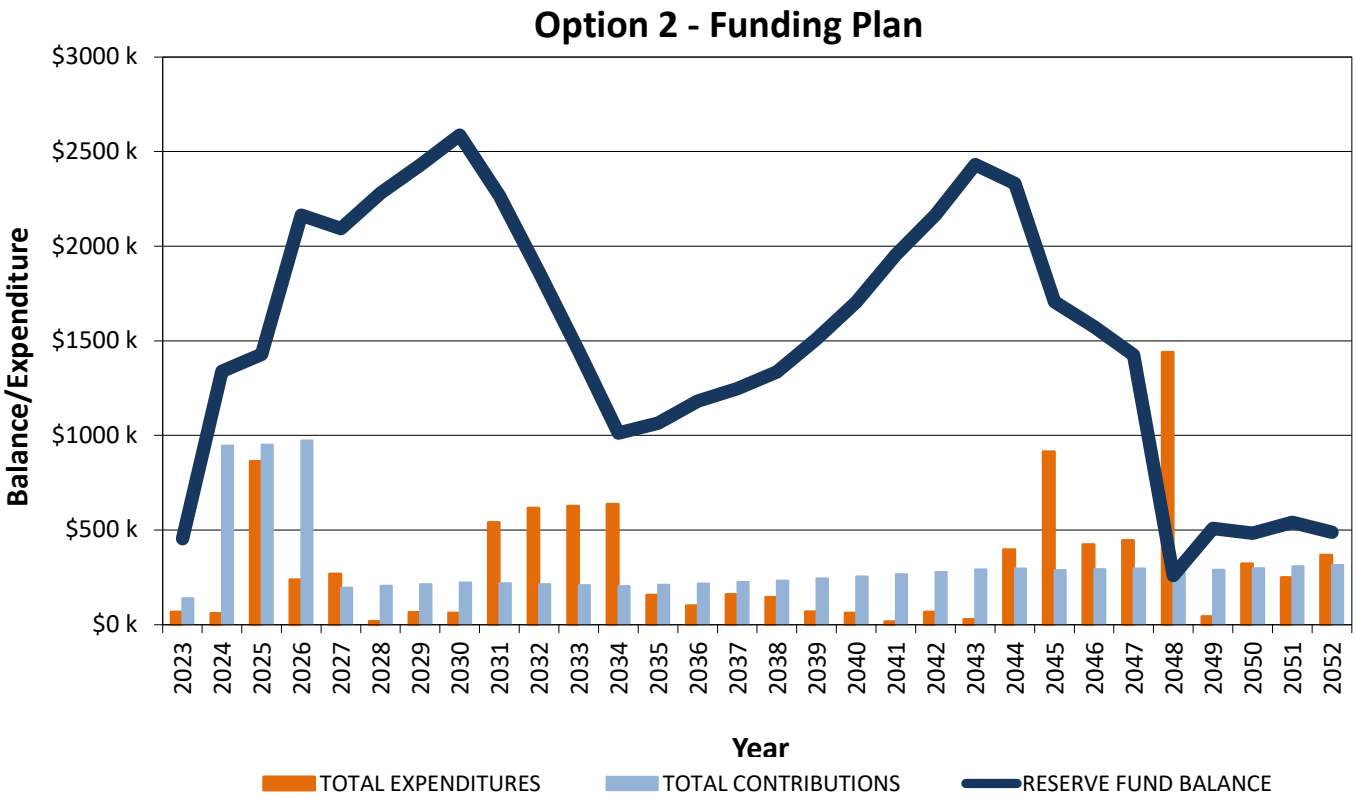
	2024	2025	2026	2027	2028
Yearly Contribution	$535,000	$551,050	$567,582	$584,609	$602,147
Monthly Contribution	$44,583	$45,921	$47,298	$48,717	$50,179
Avg. Unit Yearly Contribution	$6,772	$6,975	$7,185	$7,400	$7,622
Avg. Unit Monthly Contribution	$564	$581	$599	$617	$635
Percent Increase to Total Yearly Contribution	310.23%	3.00%	3.00%	3.00%	3.00%



Option 2 – Special Assessment

Option 2 eliminates the shortfall by performing special assessments. Going forward, the contributions will be increased at a rate that matches inflation; however, additional funds will be contributed to the following years. This option ensures the Corporation gets back on track while keeping the Condominium's contributions at the current rates.

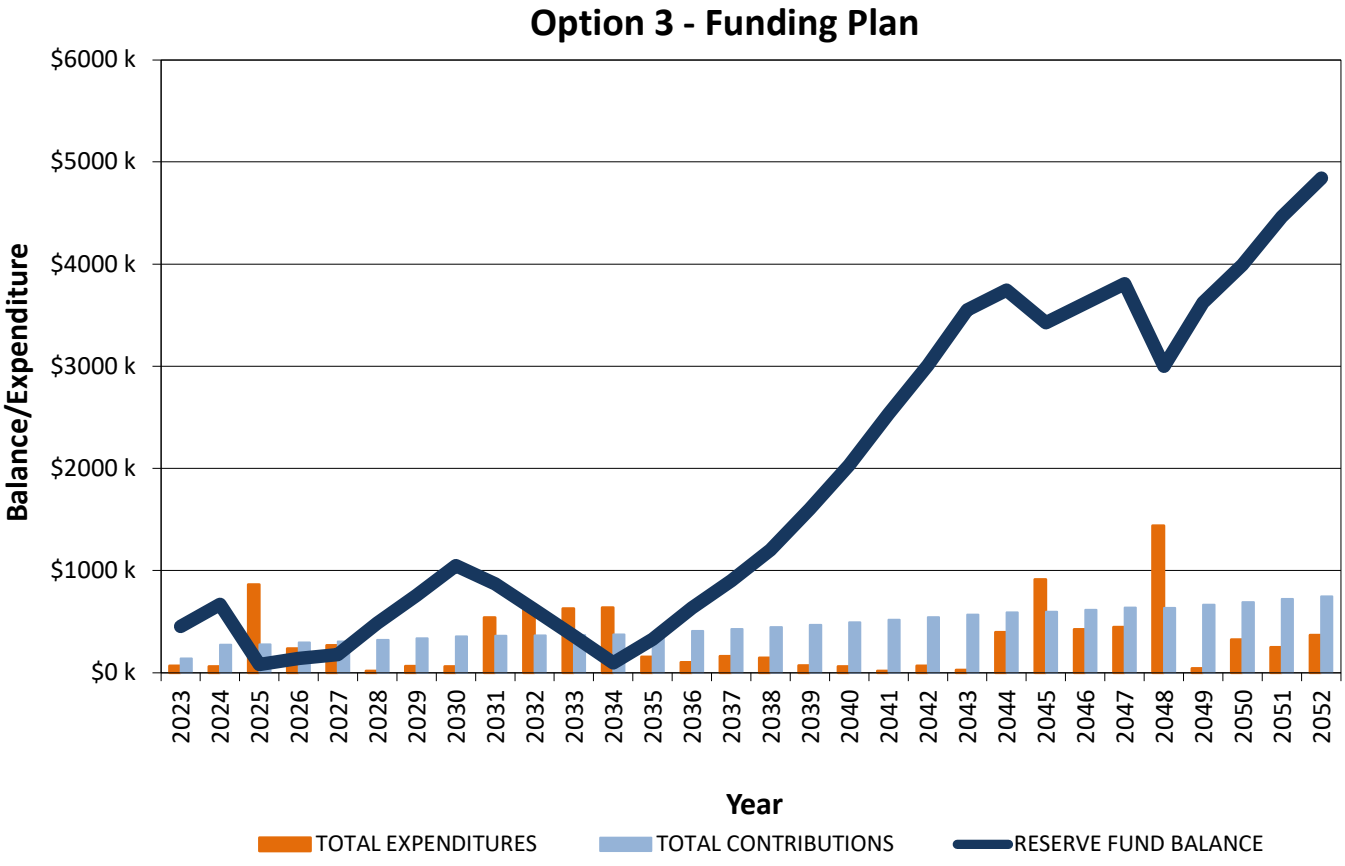
	2024	2025	2026	2027	2028
Yearly Contribution	$134,326	$138,356	$142,507	$146,782	$151,186
Monthly Contribution	$11,194	$11,530	$11,876	$12,232	$12,599
Avg. Unit Yearly Contribution	$1,700	$1,751	$1,804	$1,858	$1,914
Avg. Unit Monthly Contribution	$142	$146	$150	$155	$159
Special Assessment	$790,000	$790,000	$790,000	$0	$0
Special Assessment per Unit	$10,000	$10,000	$10,000	$0	$0
Percent Increase to Total Yearly Contribution	3.00%	3.00%	3.00%	3.00%	3.00%



Option 3 – Ramp Increase

Option 3 eliminates the shortfall by increasing the contributions to the reserve by a constant rate between now and the Corporation's next reserve fund study. Over the next 3-years the contributions will increase at a rate greater than inflation and upon year 4 and all years thereafter, the contributions will then increase by inflation only. Additionally, special assessments have been provided in these years to reduce contribution rate increase. This option provides a more gradual increase to the contributions; however, there is a greater risk of a mid-study update in comparison to Options 1 or 2 as the shortfall is only fully covered by the last year of study.

	2024	2025	2026	2027	2028
Yearly Contribution	$260,828	$277,782	$295,838	$304,713	$313,854
Monthly Contribution	$21,736	$23,148	$24,653	$25,393	$26,155
Avg. Unit Yearly Contribution	$3,302	$3,516	$3,745	$3,857	$3,973
Avg. Unit Monthly Contribution	$275	$293	$312	$321	$331
Percent Increase to Total Yearly Contribution	100.00%	6.50%	6.50%	3.00%	3.00%



The Board has chosen funding plan Option 3.

This Reserve Fund Study has been prepared by:

Jennifer Farquharson, B.A.Sc.Civ.Eng

Steve Christison, P.Eng

Contents

Description of Property

Carleton Condominium Corporation No. 276 was registered as a Condominium in 1985 and consists of 79 two-storey townhomes in twelve blocks of four to eight units per block, plus a small condominium office building.

The condominium municipal address is located at Sandhamn Private in Ottawa, Ontario.

Figure 1: Property Boundaries

Description of Common Elements

The unit boundaries of the units are per the following:

- The VERTICAL boundaries of a unit are:
  - The unit side surfaces of the framing studs forming part of the exterior walls of the first and second floors of the unit, and the plane created by said surfaces, and the production of said plane through the floors and across opening for vents.
  - In the basement, the unit side surface of the exterior poured concrete foundation walls forming such basement.
  - In the garage:
    - Above the foundation walls, the unit side surfaces of the framing studs forming part of the exterior walls of the unit and the plane created by said surfaces.
    - Below the top of the foundation walls, the unit side surfaces of the exterior poured concrete foundation walls.
  - The unit side surface of the innermost panes of window glass.
  - The unfinished unit side surface of the window frames.
  - The unfinished unit side surface of the doors leading out of the unit, in the closed position and where applicable, the unit side surface of the glass in the said doors.
  - In the vicinity of concrete block firewalls, applicable to Units 3, 4, 23, 24, 35, 36, 45, 46, 57, 58, 65 and 66, the unit side surface of said concrete block firewalls.
- The HORIZONTAL boundaries of a unit are:
  - Lower:
    - The upper surface of the unfinished concrete floor slab in the basement and garage.
  - Upper:
    - The upper surface of the ceiling drywall of the second floor.
    - In that portion of the garage extending beyond the second floor outline, the lower surface of the roof trusses and the plane created by said surfaces.
  - In the vicinity of the transition from concrete foundation wall to first floor stud wall or garage stud wall, the upper surface of said concrete foundation wall.
- Further to the foregoing,
  - The unit shall include all fixtures, outlets, heating equipment, and other facilities which are within the boundaries of the unit and which service the unit only.
  - The fireplaces in Units 38, 41, 47, and 52, and all equipment appurtenant therto shall form a part of the unit, save and except the metal chimney extending above the upper unit boundary.
- Notwithstanding the foregoing, a unit shall NOT include:
  - Pipes, wires, cables, conduits, ducts, flues, or shafts which serve other units or common elements.
  - Public utility lines, including those lines used for power, telephone, cablevision, gas, water, sewer, or drainage.

Items not enclosed within the unit boundaries or meet the conditions of any exemptions are considered part of the common element component inventory. Based on our site inspection and review of the supplied documentation, the common element component inventory of the Corporation consists of the following systems:

- Site Services and Infrastructure
- Site Features
- Building Structure
- Building Envelope
- Condominium Office
- Electrical System
- Lighting System

References

The following documentation was supplied by representatives from the Corporation:

- Declaration; dated 1984.05.08
- Previous Reserve Fund Studies
  - Reserve Fund Study Update without Site Visit; dated 2020.10.26; Paterson Group Consulting Engineers
- Consultant Reports
  - Driveway Drainage Improvement Options; dated 2019.11.25; Keller Engineering
- Financial Documentation
  - Financial Statement; dated 2022.12.31
  - Budget 2023

Frequently Asked Questions:

What is the Purpose of a Reserve Fund Study?

The Reserve Fund Study is a regular undertaking, required by the Condominium Act, and regulated by O.Reg 48/01, to set annual contributions to the Reserve Accounts so as to ensure sufficient funds are available to fund the major repairs and replacement to the common elements of the condominium as they become due.

The Reserve Fund Study Update With A Site Visit is provided in 2 sections, the Technical Assessment, where common elements are assessed and evaluated for remaining service life and the Financial Assessment where the priorities of the building and corporations are scheduled and budgeted for planning purposes.

How does Keller approach this?

Keller Engineering has provided Reserve Fund Studies to Condominium Corporations in Ontario since 1986. In our over 3 decades of reporting, we have developed the skills, practice and experience required to assist Corporations in approaching their planning and financing requirements in a manner that takes into account the objectives of the corporation, the realities of common living, and the requirements of the Condominium Act.

Throughout this report, tips are identified for important suggestions or guidance to the corporation that may fall outside the standard provisions of the RFS.

How should you read this report?

The report is separated into building systems and elements. Each section provides a description of the element, and a table summarizing the following information:

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					

Furthermore, each section includes photos of identified defects and recommendations regarding further inspections.

How should you read the spreadsheet?

The spreadsheet, included in Appendix A, is a visual representation of the repair and replacement scheduling along with our recommended plan over the period of the study.

Expenditures are shown per element type as un-inflated present worth values for ease of comparison of the values of the projects. Then, all expenditures within one fiscal year are tabulated so they can be inflated to future worth values for forecasting the future costs at the projected time of the expenditure.

Our recommended contributions to the reserve fund are determined through an iterative process and are provided for the following three fiscal years. For the period following this adjustment period, the contributions are set to increase at the inflation to ensure the reserve fund remains adequate for the entire scope of the study

The reserve fund balance is evaluated at the end of each fiscal year and is determined by examining the balance at the end of the previous fiscal year, subtracting the future worth expenditure and adding the forecasted contribution and the estimated interest earned in that fiscal year. At the end of the spreadsheet, the remaining reserve fund is shown in current dollars to provide a better perspective of the fund balance at the end of the study period.

KELLER TIPS

- RFS spreadsheets are a tool to inform your annual budget.
- Corporations must increase the values in this report by inflation if they are using the estimates for individual project budgeting

How does Keller confirm what elements are included?

The technical assessment process will develop a Component Inventory, which is the list of the common elements and assets of the corporation that will require major repair or replacement of the life off the condominium. This list is developed by several means:

- Review of the Declaration and Survey Plans, that will define the boundaries of the unit
- Review of available as-built drawings to better understand the elements,
- Review of shared facilities and reciprocal agreements with other condominiums
- Site evaluation and interviews with stakeholders will identify assets of the corporation, such as gym equipment and furniture, that would not be identified in building plans.

KELLER TIPS

- The condo act requires all common expense over $500 be planned for and funded within the reserve. This value in practice is too low for all but the smallest condominium corporations. This threshold is reviewed and adjusted with the board in this report

How does Keller establish condition of the elements?

A site inspection is performed during the technical assessment to estimate the general condition of the common elements.

Conditions are evaluated based off multiple factors including age of the element, signs of degradation, signs of premature deterioration, and professional judgement. Furthermore, any non-reserve fund reports that have been provided to Keller regarding condition of an element, such as a roof condition assessment, will be reviewed and considered during the technical assessment.

Conditions are rated as follows:

Good – The element generally exhibits little to no deterioration and is expected to last or exceed its estimated full life cycle, assuming regular maintenance and no change to its general environment.

Satisfactory – The element generally exhibits minor deterioration, in line with its age and is expected to last its estimated full life cycle, assuming regular maintenance and no change to its environment.

Fair – The element is serviceable although there is evidence of collective degradation or deficient operation. Major repairs may be required within the next 5 years.

Poor – the element is either at the end of its life cycle or there is potential for imminent failure. The element may be inoperative or exhibit total failure and immediate repairs or replacement may be required.

Many elements, such as mechanical and electrical equipment components and infrastructure, are largely obstructed from full view or are unassessable during a general reserve fund study site visit as such, the conditions of these elements are heavily weighted towards age relative to overall life expectancy and any information obtained through 3rd party reports.

The condition assessment of the common elements is based upon visual examination only. Neither destructive testing nor performance monitoring are conducted.

KELLER TIPS

- Elements are reviewed on a sampling basis, the scale of which is dependent on the element type and professional judgement.
- Where each boiler may be reviewed, only a representative portion of a brick veneer would be reviewed.
- Reserve Fund Study inspections are not meant to be an exhaustive inspection of every element and cannot be relied upon to have full assessed the condition of any element.

How does Keller establish the type of recommended repair or replacement?

Elements can have multiple repair or replacement options; however, the Reserve Fund plan will focus on the options that, in Keller's opinion, are most appropriate given the age and time to replacement of the elements. Alternative repair or replacement options may be selected in the future that might impact the contribution levels.

Timing of repairs are based on the estimated remaining service life, urgency of the intervention, and funding constraints of the corporation.

Depending on the condition or type of element, repairs or replacement may be envisioned and funded as full projects, such as a roof membrane replacement, or as an allowance whereby a portion of funds are put aside at regular intervals to ensure a portion of the element can be addressed as the needs arise. These allowances are scheduled and funded such that sufficient collective funding is available over the life of the element to ensure a full renewal of all portions, regardless of when then are scheduled.

How does Keller establish the timing of the repair or replacement?

When determining the timing of expenses, several factors are reviewed and each factor is graded on its importance. The factors include:

i) The risk to the Corporation if there is an imminent failure of the component
ii) The ability to maintain the component in an effective and usable state
iii) The Corporation's wishes to update a component

In most cases, expenses for each common element have been budgeted for the specific fiscal year in which the repair or replacement will likely be required. If possible, repair or replacement of the common elements will usually be performed throughout the corporation for one year rather than spreading the repairs out over a few years as this is generally the most cost-effective solution. For cases where repair or replacement of a building component is not required throughout the corporation at the same time, it may be more cost effective to phase the work over two or more years. Phasing the work may also be necessary due to a lack of funds.

KELLER TIPS

- Judging priorities is not always easy. Many owners want a lobby refurbishment. Most owners want potholes repairs. All owners always want hot water.

KELLER TIPS

- Life expectancy projections for the common elements assume that the corporation will provide satisfactory and timely periodic maintenance. The study does not make allowances for the effects of rare events such as flood, fire, lightning, explosions, earthquakes etc.

How does Keller establish the price of the repair or replacement?

The procedures for determining repair/replacement costs of the common elements involve site inspections, quantity take-offs from drawings, cost estimations, and a spreadsheet layout which are described in detail in this report.

Once the type and quantity of repair or replacement work are known, the costs associated with such work are estimated. Keller Engineering has developed an extensive listing of unit costs for a wide variety of repair and replacement work involving all civil, structural, architectural, and electrical elements that are typically included in Reserve Fund Studies. This listing was compiled using prices obtained from repair and replacement contracts in which Keller Engineering has been involved, cost estimates provided by manufacturers, suppliers and contractors, and published pricing data.

For unique repair or replacement items, advice is generally obtained from a contractor with experience in the work of concern. In such cases, the contractor examines the work and prepares an estimate for our use in the Reserve Fund Study.

Unless requested by the Board, all costs assume that the Contractor performing the work will have full access to the work site for the entire duration of the project and no special considerations have been provided to allow continual use or access of the work area by the unit owners.

Replacement costs are typically based on like-for-like with a similar asset unless code or other circumstances require the replacement cost to include an upgrade.

Estimates of costs are Class D estimate intended for planning purposes and not for accounting or tender use. Estimates assumed economies of scale will be achieved by bundling of work tasks where appropriate. These estimates include some reasonable allowance for site specific access requirements, where assessable and appropriate, but do not account for environmental concerns, which should be evaluated on a project specific basis.

Costs are subject to other variances in the market. Costs may vary depending on time of year, contractor availability and other factors.

KELLER TIPS

- Estimates must be updated over time, further developed for scope of work, and confirmed by competitive pricing. Detailed repair specifications are often required confirm scopes of work and costs.
- Allowances for soft costs, such as consulting services and contingency allowances are included in the budget estimates.

How far into the future does the plan project?

The Condominium Act requires a funding plan that incorporates all major repairs and replacements required to the common elements over 30 years. Keller Engineering projects expenses for a timeframe 15-years beyond the 30-year plan. Financial plans will be presented that will meet the necessary funding requirements of both the 30-year plan and the period 15-years beyond. It is common that a financial plan that only meets the 30-year period will not be sufficient to prevent a deficit occurring in the 15-years beyond the scope of the study. The Board of Directors may elect to proceed with a funding plan which exhibits a deficit beyond the 30-year plan with the knowledge that a significant increase to the contributions may be required upon time of the next Reserve Fund Study

What inflation rate is used?

A 30-year annual inflation rate of **3.0%** has been used in this report. This rate is based on annually published data by Statistics Canada relating to the construction price index for residential buildings in the local region.

While the increase in construction costs will fluctuate from year to year, an annual rate of **3.0%** will likely provide a reasonable representation of how prices will increase over the scope of the study.

What interest rate is used?

For this Reserve Fund Study, a 30-year **2.5%** interest rate was assumed in calculating the annual contributions from interest earned on the reserve fund balance.

While actual inflation and interest rates may differ from those assumed for this report, the above rates, in combination, should be representative over the next few years.

What is an adequately funded Reserve?

The Condominium Act requires that the balance of the reserve fund be adequate to fund the future costs of the major repairs and replacements, without provide an indication of what adequate means.

The most accepted interpretation of adequate funding is that annual contributions remain constant and increasing only by inflation and that no planned special assessments are necessary.

KELLER TIPS

- Keller's position is that all increases to contributions must be completed within 3 years following the study and must be planned to only increase by inflation thereafter.

Is there a minimum fund balance that the plan should not go below?

An adequately funded reserve fund will maintain a reasonable minimum balance throughout the study. This year in which the minimum balance occurs is the Critical Year. This value of this minimum balance is developed in conjunction with the board of directors and based on the size of the building, the timing of the critical year, and the quantity of work forecasted in the near-term.

For the this report a minimum balance of $80,000 was used and a $3,000 annual contingency allowance was requested.

How does Keller determine future funding requirements?

The purpose of the spreadsheet is to determine the annual reserve fund contributions required to ensure that there will be sufficient funds to pay for all foreseeable expenditures over the period of the study. To determine the total expenditures to be incurred in each fiscal year, the projected expenditures are entered into the spreadsheet, summed, and adjusted for yearly construction cost increases.

Trial values for the annual reserve fund contributions are entered into the spreadsheet and through an iterative process the most appropriate annual contributions are determined and used to establish the 30-year funding plan. The iterations account for annual expenditures, annual contributions from owners' monthly fees as well as contributions from investment interest earned on the unused balance of the reserve fund.

The most appropriate contribution ensures that sufficient funds are accumulated in the reserve fund to cover all anticipated expenditures as they come due while leaving a surplus at the end of the study period. The size of the surplus depends greatly on the individual condominium and on the expenses that are to be incurred beyond the study period. Condominiums which are expected to incur large expenditures shortly beyond the study period should have a large surplus.

KELLER TIPS

- Provided the Critical Year falls outside the 30-year funding interval, a secondary iteration may be useful to identify theoretical funding adjustments made by in future reserve fund studies

What about upcoming changes to the Condominium Act?

Keller Engineering is current on the imminent changes to the Condominium Act and where appropriate we have adjusted the methodology to incorporate those changes.

1 Site Services & Infrastructure

1.1 Water and Wastewater Infrastructure

Description

The underground services which include sanitary and storm water piping systems, water mains, and supply lines are situated beneath the condominium complex. Fire hydrants provide safety to the property in case of a fire incident.

KELLER TIPS

- Camera inspections and sewer cleaning should be performed every 5 and 10 years respectively to ensure proper operation of these systems.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Sewer Drains	-	Allowance	-	-		Minor Repairs	3,955[1]	2023	1	-
Water Mains and Supply Lines	Throughout	Allowance	1984	40-50		Major Repairs	150,000	2044	1	-
Sanitary Sewers	Throughout	Allowance	1984	40-50		Major Repairs	Included[2]	2044	1	-
Storm Sewers	Throughout	Allowance	1984	40-50		Major Repairs	Included[1]	2044	1	-
Water Mains and Supply Lines	Throughout	Allowance	1984	40-50		Minor Repairs / Investigation	7,000	2025	1	5
Sanitary Sewers	Throughout	Allowance	1984	40-50		Minor Repairs / Investigation	Included[3]	2025	1	5
Storm Sewers	Throughout	Allowance	1984	40-50		Minor Repairs / Investigation	Included[2]	2025	1	5
Fire Hydrants	Throughout	3	1984	40-50		Isolated Replacement/ Repairs	6,000	2044	1	-

[1] Expense reported by the Property Manager.
[2] Repairs have been included in the water main and supply lines major repair allowance.
[3] Repairs have been included in the water main and supply lines minor repair allowance.

View of fire hydrant.

2 Site Features

2.1 Pavements & Concrete Curbs[4]

Description

The roadways and parking areas consist of asphalt pavements and are bordered with concrete curbs.

The driveways consist of asphalt pavements and are bordered with concrete curbs.

The walkways consist of asphalt pavements or interlocking pavers.

General Notes

At the request of the board, the scheduling of the asphalt paved roadways, parking areas, and driveways has been moved to fiscal year 2024 from 2025. The reconstruction of the asphalt pavement will include lowering the grade of the roadway at the east and north-east areas of the property to correct negative drainage slopes that currently exist.

KELLER TIPS

- Resurfacing of the asphalt pavement is generally performed when an asphalt overlay alone will adversely affect levels and drainage, and because cracking and settlement in the existing pavement will not allow for an overlay to provide a lasting repair. The resurfacing process will involve the removal of the existing asphalt pavement and fine grading and compaction of the existing sub-base prior to reinstatement of the new asphalt overlay.
- Full reconstruction of asphalt surfaces is generally performed when the second renewal becomes necessary (i.e. after about 40-50 years of service). Complete reconstruction involves the removal of existing asphalt pavement as well as the existing sub-base. New sub-base materials are then implemented and compacted, prior to the reinstatement of a new asphalt overlay. This is often required instead of resurfacing due to pavement sub-base deterioration.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Asphalt Pavement	-	Allowance	2023	-	-	Repairs	13,053[5]	2023	1	-
Asphalt Pavement - Roadways and Parking	Throughout	3,000 m^2	-	20-25	-	Resurfacing	200,000	2045	1	-
Asphalt Pavement - Roadways and Parking	Throughout	3,000 m^2	-	30-40		Recons.	460,000	2025	1	-
Asphalt Pavement - Roadways and Parking	Throughout	Allowance	-	-	-	Localized Pothole and Crack Repair	Operating Budget	As-needed	-	-

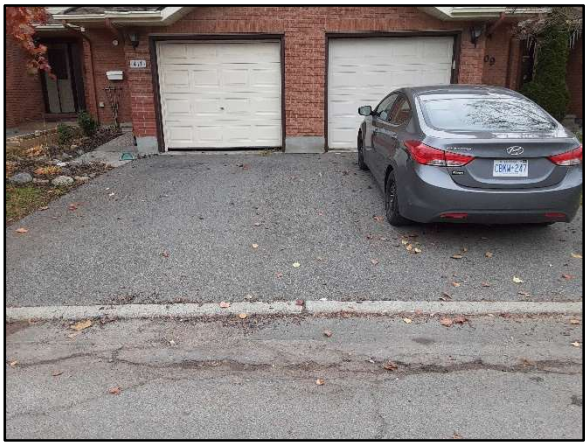
[4] Quantities in this section were based on localized field photographs and measurements as well as satellite photography. Variances in the actual quantities are to be expected.
[5] Expense reported by the Property Manager.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Cast-in-Place Concrete Curbs	Site Boundary	800 m	-	30-40		Replacement	160,000	2025	1	-
Cast-in-Place Concrete Curbs	Site Boundary	Allowance	-	-	-	Localized Replacement	30,000	2045	1	-
Asphalt Driveway	Throughout	1,600 m^2	-	15-20		Replacement	90,000	2025	1	20
Asphalt Walkways	Throughout	270 m^2	-	15-20		Replacement	32,000	2025	1	20
Pavers Walkways	Throughout	400 m^2	-	30-40		Isolated Repairs	5,000	2025	1	5
Pavers Walkways	Throughout	Allowance	-	-	-	Resetting and Repairs	30,000	2045	1	-

View of asphalt paved roadway and concrete curbs.

View of asphalt paved roadway and concrete curbs.

View of asphalt driveways.



View of asphalt driveways.

View of asphalt walkway.

View of asphalt walkway.

View of paver walkway.

View of paver walkway.

2.2 Stairs

Description

The precast concrete stairs provide access to the front and rear entrances of the townhomes.

The stair handrails provide stability support at staircases.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Precast Concrete Stairs	Throughout	Allowance	1984	25-40		Repairs / Isolated Replacements	15,000	2024	1	5
Handrails Aluminum	Throughout	Allowance	-	25-40		Repairs	Included[6]	2024	1	5

View of entrance steps.

View of entrance steps and aluminum handrails.

[6] Repairs of the aluminum handrails included in the repairs of the concrete stairs.

2.3 Landscaping

Description

The landscaped grounds, grass areas, shrubs, and trees surround the condominium complex property.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Site Landscaping	Throughout	Allowance	Varies	Varies		General Restoration	10,000	2028	1	5[7]

View of site landscaping.

View of site landscaping.

[7] Schedule reported by Property Manager

2.4 Fencing[8]

Description

The wood privacy fencing is located at the rear of each townhome.

The chain-link property fencing is located on the west perimeter of the property inside the hedge.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis						Repair / Replacement Forecasting				
Wood Fencing	Rear of Units	870 m	-	15-20		Replacement	420,000	2026	2	20
Chain-link Fencing	West Perimeter	125 m	-	30-40		Replacement	12,000	2034	1	30
Painting	Throughout	Allowance	Varies	5-6		Repainting	35,000	2032	1	6

View of wood fencing.

View of wood fencing.

[8] Quantities in this section were based on localized field photographs and measurements as well as satellite photography. Variances in the actual quantities are to be expected.

View of chain-link fencing.

3 Building Structure

3.1 Structure

Description

The cast-in-place concrete foundation walls support the townhomes. Parging is applied to exposed foundation walls.

Superstructure is the above grade portion of the building, including columns, beams, and walls.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Foundation Walls	Throughout	Allowance	1984	Lifetime		Repairs	10,000	2025	1	5
Parging	Throughout	Allowance	Varies	15-20		Repairs	Operating Budget	-	-	-
Wood Framing	Throughout	Allowance	1984	Lifetime		Major Repairs	Included[9]	Beyond 30 years	Varies	Varies
Attic	Throughout	Allowance	1984	Lifetime		Major Repairs	Included[10]	2025	1	5

View of foundation wall and parging.

View of attic.

[9] Included in the applicable building envelope repairs
[10] Allowance requested by the Property Manager included in the foundation wall repairs

3.2 Decks

Description

Decks are a platform that projects from the wall of the townhomes and is enclosed by a railing system. The deck structures composed of beams and joists supported on columns. A decking system covers the deck structure, providing a platform for users to stand on.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Deck Structure Wood Beams, Joists, Columns	Rear of Units	Allowance	Varies	30-40		Repairs / Isolated Replacement	25,000	2024	1	3

View of deck structure.

View of deck structures.

4 Building Envelope

4.1 Masonry

Description

A masonry veneer is installed as the primary cladding of the townhomes.

These walls are constructed of a single non-structural layer of brick masonry, an air gap, and an inner back-up wall that is generally constructed of wood studs.

KELLER TIPS

- While the masonry wall will likely last the life of the building, it will require some maintenance throughout its life. Commonly, major repairs to the masonry are needed once it becomes 30-years of age.
- That chalky white stuff on your brick is called efflorescence and it is usually an indication of moisture seepage through the brick. While the efflorescence itself is not harmful, it can be an indicator of other issues with the masonry.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Brick Veneer	Main	Allowance	1984	Lifetime		General Repairs	30,000	2025	1	10

View of brick veneer.

View of efflorescence on brick veneer.

View of efflorescence on brick veneer.

View of chipped brick veneer.

4.2 Siding Systems[11]

Description

The exterior walls have been cladded with siding.

These walls are constructed of individual weather resistant pieces that are fastened to a back-up wall.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Siding	-	Allowance	2023	-	-	Replacement	18,532[12]	2023	1	-
Siding	-	Allowance	-	-	-	Repairs and Isolated Replacements	10,000	2024	1	8[13]
Wood Siding	Isolated	700 m^2	-	25-30		Replacement	260,000	2031	4	30
Aluminum Siding	Throughout	4,000 m^2	1984	40-50		Replacement	1,288,000	2031	4	40
Shakes	Isolated	Allowance	-	25-35		Replacement	Operating Budget	-	-	-

View of wood siding.

View of wood siding.

[11] Quantities in this section were based on localized field photographs and measurements as well as satellite photography. Variances in the actual quantities are to be expected.
[12] Expense reported by the Property Manager.
[13] Schedule reported by the Property Manager and not included in years of replacement

View of aluminium siding.

View of aluminum siding.

View of shakes siding.

4.3 Fenestration System

Description

The building has a mixture of fixed and slider windows and sliding patio doors.

Entry into the townhomes is provided by swing doors at the main entrance.

Vehicle entry into the garage is provided by the sectional roll-up doors.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Garage Vehicle Doors	-	Allowance	-	-	-	Repairs	2,739[14]	2023	1	-
Vinyl Window	Main	Allowance	2021-2023	30-40		Replacement	220,000	Beyond 30 years	3	35
Wood Window	Isolated	Allowance	1984	20-30		Replacement	Operating Budget	-	-	-
Vinyl Sliding Door	Rear of Units	79	2021-2023	30-40		Replacement	220,000	Beyond 30 years	3	35
Front Entry Door	Front of Units	80	2020-2023	20-30		Replacement	160,000	2050	4	30
Garage Vehicle Door	Front of Units	79	2020-2023	15-20		Replacement	164,000	2035	4	15

View of typical vinyl windows.

View of wood window.

[14] Expense reported by the Property Manager.

View of typical vinyl sliding door.

View of typical front entry door.

View of typical garage vehicle doors.

4.4 Roofing System[15]

Description

A shingle roofing system protects the roofs of the townhomes.

Shingle roofing systems are installed on sloped roofs where each individual shingle overlaps the previous course.

Eavestroughing and downspouts have been installed at the roof perimeter.

A fully vented soffit system has been installed to provide ventilation to the attic.

General Notes

The shingles of 4 garages had 3-tab shingles.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Shingles	-	Allowance	2023	-	-	Replacement	22,323[16]	2023	1	-
Shingles 3-Tab	Isolated	60 m^2	-	15-20		Replacement	5,000	2024	1	-
Shingles Architectural	Main and Mansard	9,000 m^2	-	20-30		Replacement	640,000	2048	1	30
Soffits and Fascia	Throughout	Allowance	-	30-40		Replacement	136,000	2031	4	35
Chimneys	Throughout	Allowance	-	-		Repairs / Isolated Replacement	5,000	2034	1	10

View of 3-tab shingles.


View of curling 3-tab shingles.

[15] Quantities in this section were based on localized field photographs and measurements as well as satellite photography. Variances in the actual quantities are to be expected.
[16] Expense reported by the Property Manager.

View of architectural shingles.


View of mansard roofs.

4.5 Sealants

Description

Exterior sealants have been installed at the joints in the cladding, flashings and around the perimeters of the windows and doors.

KELLER TIPS

- While it may appear easier to apply new sealants over the old, cracked sealants, new sealants will not properly bond to the old sealants, and this can result in failure of the sealant within the first couple years. When replacing sealants, the existing sealant should be fully removed, the joint fully cleaned and only then should new sealant be installed.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Sealants	Throughout	Allowance	Varies	10-15		Replacement	60,000	2037	1	15

View of typical window perimeter sealant.

View of typical door perimeter sealant.

5 Condominium Office

5.1 Condominium Office

Description

Generally major renovations of the condominium office building occur after 30-40 years of service as the original finishes appear dated. Typically, the furniture requires replacement every 10 years.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Condominium Office	SW Portion	Allowance	1984	Varies		Repairs	10,000	2032	1	10

View of the front of the condominium office.

View of the rear of the condominium office.

View of the interior of the condominium office.

6 Electrical System

6.1 Main Electrical Service

Description

The main hydro equipment consists of pad mounted transformers located outside the townhomes.

The primary transformers are owned and maintained by Hydro Ottawa.

General Notes

Hydro Ottawa requires a minimum clearance on all sides of the pad mount transformer for servicing the equipment and to provide equipment cooling. Trees and shrubs surrounding the pad mount transformer must be removed.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Electrical Wiring	Underground	Allowance	1984	45-50	 [17]	Isolated Replacement	30,000	2029	1	40
Electrical	-	Allowance	-	-	-	Repairs	2,000	2025	1	3[18]
Main Disconnect Switch	Condominium Office / Light Posts	Allowance	1984	40-45		Replacement	Included[19]	2029	1	40

Typical pad-mounted transformer.

[17] Suspected condition.
[18] Scheduled reported by Property Manager.
[19] Main disconnect switch replacement included in electrical wiring allowance.

7 Lighting System

7.1 Lighting System

Description

Exterior light fixtures and light poles provide lighting throughout the exterior common areas of the condominium.

KELLER TIPS

- There are energy saving opportunities by retrofitting lighting to newer more efficient technologies. It would be beneficial to replace incandescent & fluorescent bulbs with more efficient LED bulbs.

Element Type	Location	Quantity	Year Installed	Service Life (Yrs)	Condition	Anticipated Work	Cost ($)	Year	Phases (Yrs)	Cycle (Yrs)
Life Cycle Analysis					Repair / Replacement Forecasting					
Exterior Light Fixtures	Throughout	Allowance	Varies	Varies		Isolated Replacement Allowance	21,000	2033	3	20
Exterior Light Poles	Throughout	Allowance	Varies	Varies		Isolated Replacement Allowance	15,000	2025	1	20

View of typical exterior light fixture.

View of typical exterior light pole.

APPENDIX A: SPREADSHEET FOR MAJOR REPAIR AND REPLACEMENT COSTS

CCC 276: Spreadsheet For Major Repair & Replacement Costs, Fiscal Years 2023 to 2052

AGE OF COMPLEX	39 Years	40 Years	41 Years	42 Years	43 Years	44 Years	45 Years	46 Years	47 Years	48 Years
REPAIR/REPLACEMENT ITEMS	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
1.0 SITE SERVICES & INFRASTRUCTURE										
1.1 Water and Wastewater Infrastructure	$3,955		$7,000					$7,000		
2.0 SITE FEATURES										
2.1 Pavements and Curbs	$13,053		$747,000					$5,000		
2.2 Stairs		$15,000					$15,000			
2.3 Landscaping						$10,000				
2.4 Fencing				$210,000	$210,000					$35,000
3.0 BUILDING STRUCTURE										
3.1 Structure			$10,000					$10,000		
3.2 Decks		$25,000			$25,000			$25,000		
4.0 BUILDING ENVELOPE										
4.1 Masonry			$30,000							
4.2 Siding Systems	$18,532	$10,000							$387,000	$387,000
4.3 Fenestration System	$2,739									
4.4 Roofing System	$22,323	$5,000							$34,000	$34,000
4.5 Sealants										
5.0 CONDOMINIUM OFFICE										
5.1 Condominium office										$10,000
6.0 ELECTRICAL SYSTEM										
6.1 Main Electrical Service			$2,000			$2,000	$30,000		$2,000	
7.0 LIGHTING SYSTEM										
7.1 Lighting System			$15,000							
GENERAL										
Contingencies		$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
Reserve Fund Study Update	$5,900			$4,000			$6,400			$4,000
YEARLY EXPENDITURE TOTALS	$66,502	$58,000	$814,000	$217,000	$238,000	$15,000	$54,400	$50,000	$426,000	$473,000
EXPENDITURES INCL. INFLATION	$66,502	$59,740	$863,573	$237,122	$267,871	$17,389	$64,956	$61,494	$539,644	$617,158
CONTRIBUTIONS FROM FEES	$130,414	$260,828	$277,782	$295,838	$304,713	$313,854	$323,270	$332,968	$342,957	$353,246
ADDITIONAL CONTRIBUTIONS										
INTEREST CONTRIBUTIONS	$9,464	$13,098	$0	$0	$621	$7,934	$14,472	$21,500	$16,995	$10,694
REMAINING RESERVE FUND	$453,242	$667,428	$81,637	$140,353	$177,816	$482,215	$755,000	$1,047,974	$868,282	$615,064

ESTIMATED RESERVE FUND = $379,866 December 31, 2022
CURRENT ANNUAL CONTRIBUTIONS = $130,414 January 1, 2023
FUTURE ANNUAL CONTRIBUTIONS = $260,828 January 1, 2024
ANN. INCREASE IN CONTRIBUTIONS = 6.5 % PER YEAR FOR 2 YEARS, STARTING IN THE FISCAL YEAR 2025

CCC 276: Spreadsheet For Major Repair & Replacement Costs, Fiscal Years 2023 to 2052

AGE OF COMPLEX	49 Years	50 Years	51 Years	52 Years	53 Years	54 Years	55 Years	56 Years	57 Years	58 Years
REPAIR/REPLACEMENT ITEMS	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
1.0 SITE SERVICES & INFRASTRUCTURE										
1.1 Water and Wastewater Infrastructure			$7,000					$7,000		
2.0 SITE FEATURES										
2.1 Pavements and Curbs			$5,000					$5,000		
2.2 Stairs		$15,000					$15,000			
2.3 Landscaping	$10,000					$10,000				
2.4 Fencing		$12,000				$35,000				
3.0 BUILDING STRUCTURE										
3.1 Structure			$10,000					$10,000		
3.2 Decks	$25,000			$25,000			$25,000			$25,000
4.0 BUILDING ENVELOPE										
4.1 Masonry			$30,000							
4.2 Siding Systems	$387,000	$387,000						$10,000		
4.3 Fenestration System			$41,000	$41,000	$41,000	$41,000				
4.4 Roofing System	$34,000	$39,000								
4.5 Sealants					$60,000					
5.0 CONDOMINIUM OFFICE										
5.1 Condominium office										$10,000
6.0 ELECTRICAL SYSTEM										
6.1 Main Electrical Service		$2,000			$2,000			$2,000		
7.0 LIGHTING SYSTEM										
7.1 Lighting System	$7,000	$7,000	$7,000							
GENERAL										
Contingencies	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
Reserve Fund Study Update			$6,400			$4,000			$6,400	
YEARLY EXPENDITURE TOTALS	$466,000	$465,000	$109,400	$69,000	$106,000	$93,000	$43,000	$37,000	$9,400	$38,000
EXPENDITURES INCL. INFLATION	$626,265	$643,669	$155,978	$101,329	$160,335	$144,891	$69,002	$61,155	$16,003	$66,633
CONTRIBUTIONS FROM FEES	$363,843	$374,758	$386,001	$397,581	$409,508	$421,794	$434,448	$447,481	$460,905	$474,733
ADDITIONAL CONTRIBUTIONS										
INTEREST CONTRIBUTIONS	$4,268	$0	$3,126	$10,465	$16,807	$23,996	$33,574	$43,909	$55,961	$67,390
REMAINING RESERVE FUND	$356,910	$88,000	$321,148	$627,865	$893,846	$1,194,745	$1,593,765	$2,023,999	$2,524,863	$3,000,352

NOTES:

1) Interest contributions for each year are calculated at the midpoint of the fiscal year and assume that all expenditures have occurred and 50% of contributions have been collected. A fixed interest rate of 2.5% is used in the calculation

2) Estimates for expenditures include HST and, where appropriate, engineering fees.

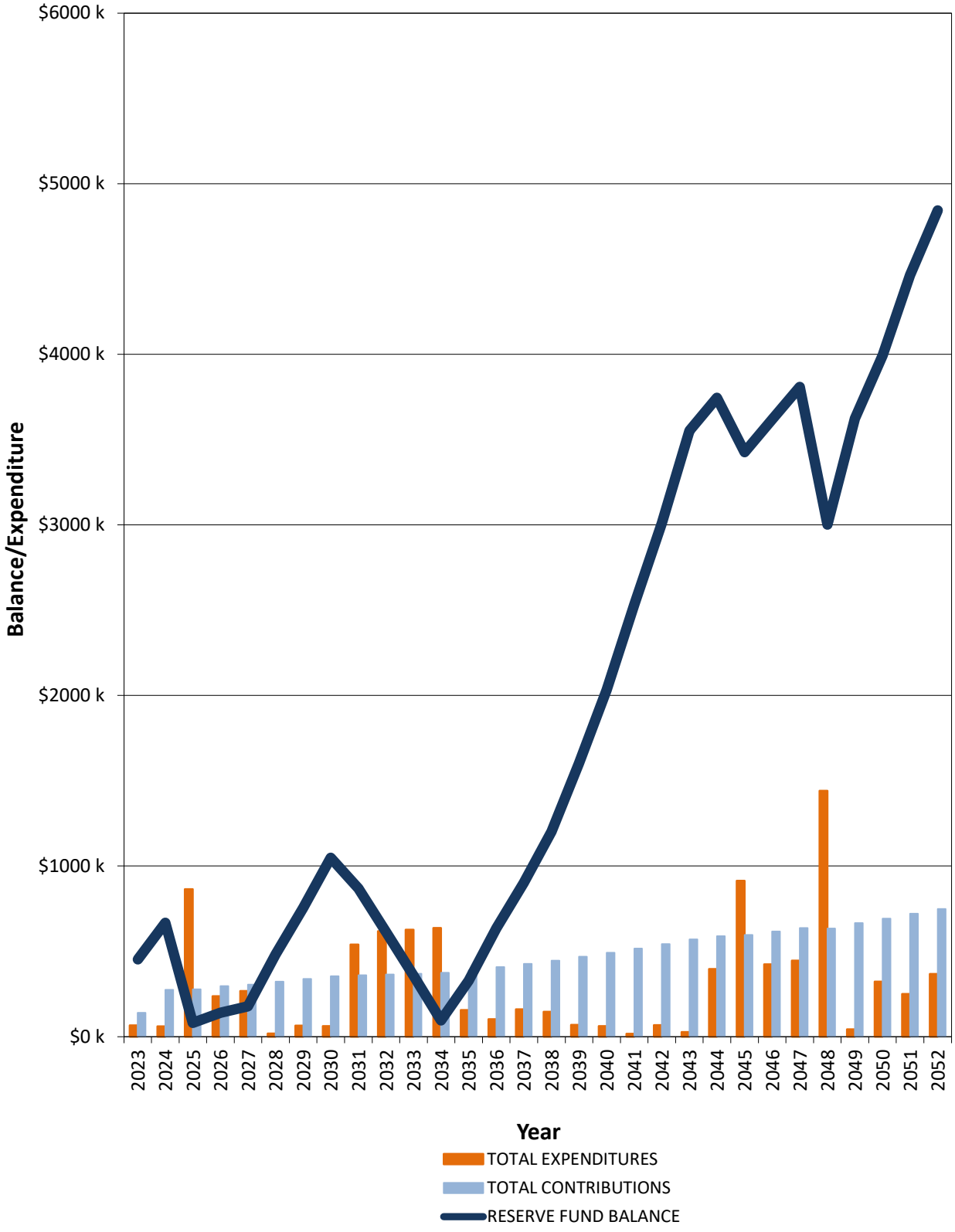
CCC 276: Spreadsheet For Major Repair & Replacement Costs, Fiscal Years 2023 to 2052

AGE OF COMPLEX		59 Years	60 Years	61 Years	62 Years	63 Years	64 Years	65 Years	66 Years	67 Years	68 Years	
REPAIR/REPLACEMENT ITEMS		2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	TOTALS
1.0	SITE SERVICES & INFRASTRUCTURE											
1.1	Water and Wastewater Infrastructure		$156,000	$7,000					$7,000			$201,955
2.0	SITE FEATURES											
2.1	Pavements and Curbs			$387,000					$5,000			$1,167,053
2.2	Stairs		$15,000					$15,000				$90,000
2.3	Landscaping	$10,000					$10,000					$50,000
2.4	Fencing		$35,000		$210,000	$210,000			$35,000			$992,000
3.0	BUILDING STRUCTURE											
3.1	Structure			$10,000					$10,000			$60,000
3.2	Decks			$25,000			$25,000			$25,000		$250,000
4.0	BUILDING ENVELOPE											
4.1	Masonry			$30,000								$90,000
4.2	Siding Systems						$10,000					$1,596,532
4.3	Fenestration System								$81,000	$81,000	$81,000	$409,739
4.4	Roofing System		$5,000				$640,000					$813,323
4.5	Sealants										$60,000	$120,000
5.0	CONDOMINIUM OFFICE											
5.1	Condominium office										$10,000	$30,000
6.0	ELECTRICAL SYSTEM											
6.1	Main Electrical Service	$2,000			$2,000			$2,000			$2,000	$50,000
7.0	LIGHTING SYSTEM											
7.1	Lighting System			$15,000								$51,000
	GENERAL											
	Contingencies	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$87,000
	Reserve Fund Study Update		$4,000			$6,400			$4,000			$51,500
YEARLY EXPENDITURE TOTALS		$15,000	$218,000	$477,000	$215,000	$219,400	$688,000	$20,000	$145,000	$109,000	$156,000	$6,110,102
EXPENDITURES INCL. INFLATION		$27,092	$405,544	$913,981	$424,321	$445,995	$1,440,519	$43,132	$322,087	$249,384	$367,624	$9,480,388
CONTRIBUTIONS FROM FEES		$488,975	$503,644	$518,753	$534,316	$550,345	$566,856	$583,861	$601,377	$619,418	$638,001	$12,712,466
ADDITIONAL CONTRIBUTIONS												$0
INTEREST CONTRIBUTIONS		$80,444	$84,724	$76,772	$81,247	$85,687	$65,781	$80,731	$89,513	$100,776	$109,822	$1,209,771
REMAINING RESERVE FUND		$3,542,679	$3,725,502	$3,407,046	$3,598,288	$3,788,325	$2,980,442	$3,601,902	$3,970,705	$4,441,515	$4,821,714	$4,821,714
									REMAINING RESERVE FUND IN 2023 DOLLARS			$2,046,077

3) Inflation assumed to be at an average rate of 3.0% over the time frame examined above.

KELLER ENGINEERING

CCC 276 - Reserve Fund Annual Expenditures/Closing Balance



APPENDIX B: MANAGEMENT PLANNING TABLE

CCC 276 : Annual Major Repair & Replacement Work, Fiscal Years 2023 to 2052

Year			Description of Work	Cost	Yearly Total	Inflated Yearly Total
39	2023	1.1	Sewer Drains Minor Repairs	$3,955		
		2.1	Asphalt Pavement Repairs	$13,053		
		4.2	Siding Replacement	$18,532		
		4.3	Garage Vehicle Doors Repairs	$2,739		
		4.4	Shingles Replacement	$22,323		
			Reserve Fund Study Update with Site Visit	$5,900		
					$66,502	$66,502
40	2024	2.2	Precast Concrete Stairs Repairs / Isolated Replacement	$15,000		
		2.2	Handrails Aluminum Repairs	Included 2.2		
		3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
		4.2	Siding Repairs and Isolated Replacements	$10,000		
		4.4	Shingles 3-Tab Replacement	$5,000		
			Contingencies	$3,000		
					$58,000	$59,740
41	2025	1.1	Water Mains and Supply Lines Minor Repairs / Investigation	$7,000		
		1.1	Sanitary Sewers Minor Repairs / Investigation	Included 1.1		
		1.1	Storm Sewers Minor Repairs / Investigation	Included 1.1		
		2.1	Asphalt Pavement - Roadways and Parking Reconstruction	$460,000		
		2.1	Cast-in-Place Concrete Curbs Replacement	$160,000		
		2.1	Asphalt Driveway Replacement	$90,000		
		2.1	Asphalt Walkways Replacement	$32,000		
		2.1	Pavers Walkways Isolated Repairs	$5,000		
		3.1	Foundation Walls Repairs	$10,000		
		3.1	Attic Major Repairs	Included 3.1		
		4.1	Brick Veneer General Repairs	$30,000		
		6.1	Electrical Repairs	$2,000		
		7.1	Exterior Light Poles Isolated Replacement Allowance	$15,000		
			Contingencies	$3,000		
					$814,000	$863,573
42	2026	2.4	Wood Fencing Replacement	$210,000		
			Contingencies	$3,000		
			Reserve Fund Study Update without Site Visit	$4,000		
					$217,000	$237,122

Notes:
1) Estimates for expenditures include HST and, where applicable, engineering fees.
2) Inflation assumed to be at an average of 3.0 % over the time frame examined above.

CCC 276 : Annual Major Repair & Replacement Work, Fiscal Years 2023 to 2052

Year			Description of Work	Cost	Yearly Total	Inflated Yearly Total
43	2027	2.4	Wood Fencing Replacement	$210,000		
		3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
			Contingencies	$3,000		
					$238,000	$267,871
44	2028	2.3	Site Landscaping General Restoration	$10,000		
		6.1	Electrical Repairs	$2,000		
			Contingencies	$3,000		
					$15,000	$17,389
45	2029	2.2	Precast Concrete Stairs Repairs / Isolated Replacement	$15,000		
		2.2	Handrails Aluminum Repairs	Included 2.2		
		6.1	Electrical Wiring Isolated Replacement	$30,000		
		6.1	Main Disconnect Switch Replacement	Included 6.1		
			Contingencies	$3,000		
			Reserve Fund Study Update with Site Visit	$6,400		
					$54,400	$64,956
46	2030	1.1	Water Mains and Supply Lines Minor Repairs / Investigation	$7,000		
		1.1	Sanitary Sewers Minor Repairs / Investigation	Included 1.1		
		1.1	Storm Sewers Minor Repairs / Investigation	Included 1.1		
		2.1	Pavers Walkways Isolated Repairs	$5,000		
		3.1	Foundation Walls Repairs	$10,000		
		3.1	Attic Major Repairs	Included 3.1		
		3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
			Contingencies	$3,000		
					$50,000	$61,494
47	2031	4.2	Wood Siding Replacement	$65,000		
		4.2	Aluminum Siding Replacement	$322,000		
		4.4	Soffits and Fascia Replacement	$34,000		
		6.1	Electrical Repairs	$2,000		
			Contingencies	$3,000		
					$426,000	$539,644

Notes:
1) Estimates for expenditures include HST and, where applicable, engineering fees.
2) Inflation assumed to be at an average of 3.0 % over the time frame examined above.

CCC 276 : Annual Major Repair & Replacement Work, Fiscal Years 2023 to 2052

Year			Description of Work	Cost	Yearly Total	Inflated Yearly Total
48	2032	2.4	Repainting	$35,000		
		4.2	Wood Siding Replacement	$65,000		
		4.2	Aluminum Siding Replacement	$322,000		
		4.4	Soffits and Fascia Replacement	$34,000		
		5.1	Condominium Office Repairs	$10,000		
			Contingencies	$3,000		
			Reserve Fund Study Update without Site Visit	$4,000		
					$473,000	$617,158
49	2033	2.3	Site Landscaping General Restoration	$10,000		
		3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
		4.2	Wood Siding Replacement	$65,000		
		4.2	Aluminum Siding Replacement	$322,000		
		4.4	Soffits and Fascia Replacement	$34,000		
		7.1	Exterior Light Fixtures Isolated Replacement Allowance	$7,000		
			Contingencies	$3,000		
					$466,000	$626,265
50	2034	2.2	Precast Concrete Stairs Repairs / Isolated Replacement	$15,000		
		2.2	Handrails Aluminum Repairs	Included 2.2		
		2.4	Chain-link Fencing Replacement	$12,000		
		4.2	Wood Siding Replacement	$65,000		
		4.2	Aluminum Siding Replacement	$322,000		
		4.4	Soffits and Fascia Replacement	$34,000		
		4.4	Chimneys repairs / Isolated Replacement	$5,000		
		6.1	Electrical Repairs	$2,000		
		7.1	Exterior Light Fixtures Isolated Replacement Allowance	$7,000		
			Contingencies	$3,000		
					$465,000	$643,669

Notes:
1) Estimates for expenditures include HST and, where applicable, engineering fees.
2) Inflation assumed to be at an average of 3.0 % over the time frame examined above.

CCC 276 : Annual Major Repair & Replacement Work, Fiscal Years 2023 to 2052

Year			Description of Work	Cost	Yearly Total	Inflated Yearly Total
51	2035	1.1	Water Mains and Supply Lines Minor Repairs / Investigation	$7,000		
		1.1	Sanitary Sewers Minor Repairs / Investigation	Included 1.1		
		1.1	Storm Sewers Minor Repairs / Investigation	Included 1.1		
		2.1	Pavers Walkways Isolated Repairs	$5,000		
		3.1	Foundation Walls Repairs	$10,000		
		3.1	Attic Major Repairs	Included 3.1		
		4.1	Brick Veneer General Repairs	$30,000		
		4.3	Garage Vehicle Door Replacement	$41,000		
		7.1	Exterior Light Fixtures Isolated Replacement Allowance	$7,000		
			Contingencies	$3,000		
			Reserve Fund Study Update with Site Visit	$6,400		
					$109,400	$155,978
52	2036	3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
		4.3	Garage Vehicle Door Replacement	$41,000		
			Contingencies	$3,000		
					$69,000	$101,329
53	2037	4.3	Garage Vehicle Door Replacement	$41,000		
		4.5	Sealants Replacement	$60,000		
		6.1	Electrical Repairs	$2,000		
			Contingencies	$3,000		
					$106,000	$160,335
54	2038	2.3	Site Landscaping General Restoration	$10,000		
		2.4	Repainting	$35,000		
		4.3	Garage Vehicle Door Replacement	$41,000		
			Contingencies	$3,000		
			Reserve Fund Study Update without Site Visit	$4,000		
					$93,000	$144,891

Notes:
1) Estimates for expenditures include HST and, where applicable, engineering fees.
2) Inflation assumed to be at an average of 3.0 % over the time frame examined above.

CCC 276 : Annual Major Repair & Replacement Work, Fiscal Years 2023 to 2052

Year			Description of Work	Cost	Yearly Total	Inflated Yearly Total
55	2039	2.2	Precast Concrete Stairs Repairs / Isolated Replacement	$15,000		
		2.2	Handrails Aluminum Repairs	Included 2.2		
		3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
			Contingencies	$3,000		
					$43,000	$69,002
56	2040	1.1	Water Mains and Supply Lines Minor Repairs / Investigation	$7,000		
		1.1	Sanitary Sewers Minor Repairs / Investigation	Included 1.1		
		1.1	Storm Sewers Minor Repairs / Investigation	Included 1.1		
		2.1	Pavers Walkways Isolated Repairs	$5,000		
		3.1	Foundation Walls Repairs	$10,000		
		3.1	Attic Major Repairs	Included 3.1		
		4.2	Siding Repairs and Isolated Replacements	$10,000		
		6.1	Electrical Repairs	$2,000		
			Contingencies	$3,000		
					$37,000	$61,155
57	2041		Contingencies	$3,000		
			Reserve Fund Study Update with Site Visit	$6,400		
					$9,400	$16,003
58	2042	3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
		5.1	Condominium Office Repairs	$10,000		
			Contingencies	$3,000		
					$38,000	$66,633
59	2043	2.3	Site Landscaping General Restoration	$10,000		
		6.1	Electrical Repairs	$2,000		
			Contingencies	$3,000		
					$15,000	$27,092

Notes:
1) Estimates for expenditures include HST and, where applicable, engineering fees.
2) Inflation assumed to be at an average of 3.0 % over the time frame examined above.

CCC 276 : Annual Major Repair & Replacement Work, Fiscal Years 2023 to 2052

Year			Description of Work	Cost	Yearly Total	Inflated Yearly Total
60	2044	1.1	Water Mains and Supply Lines Major Repairs	$150,000		
		1.1	Sanitary Sewers Major Repairs	Included 1.1		
		1.1	Storm Sewers Major Repairs	Included 1.1		
		1,1	Fire Hydrants Isolated Replacement / Repairs	$6,000		
		2.2	Precast Concrete Stairs Repairs / Isolated Replacement	$15,000		
		2.2	Handrails Aluminum Repairs	Included 2.2		
		2.4	Repainting	$35,000		
		4.4	Chimneys Repairs / Isolated Replacement	$5,000		
			Contingencies	$3,000		
			Reserve Fund Study Update without Site Visit	$4,000		
					$218,000	$405,544
61	2045	1.1	Water Mains and Supply Lines Minor Repairs / Investigation	$7,000		
		1.1	Sanitary Sewers Minor Repairs / Investigation	Included 1.1		
		1.1	Storm Sewers Minor Repairs / Investigation	Included 1.1		
		2.1	Asphalt Pavement - Roadways and Parking Resurfacing	$200,000		
		2.1	Cast-in-Place Concrete Curbs Localized Replacement	$30,000		
		2.1	Asphalt Driveway Replacement	$90,000		
		2.1	Asphalt Walkways Replacement	$32,000		
		2.1	Pavers Walkways Isolated Repairs	$5,000		
		2.1	Pavers Walkways Resetting and Repairs	$30,000		
		3.1	Foundation Walls Repairs	$10,000		
		3.1	Attic Major Repairs	Included 3.1		
		3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
		4.1	Brick Veneer General Repairs	$30,000		
		7.1	Exterior Light Poles Isolated Replacement Allowance	$15,000		
			Contingencies	$3,000		
					$477,000	$913,981
62	2046	2.4	Wood Fencing Replacement	$210,000		
		6.1	Electrical Repairs	$2,000		
			Contingencies	$3,000		
					$215,000	$424,321

Notes:
1) Estimates for expenditures include HST and, where applicable, engineering fees.
2) Inflation assumed to be at an average of 3.0 % over the time frame examined above.

CCC 276 : Annual Major Repair & Replacement Work, Fiscal Years 2023 to 2052

Year			Description of Work	Cost	Yearly Total	Inflated Yearly Total
63	2047	2.4	Wood Fencing Replacement	$210,000		
			Contingencies	$3,000		
			Reserve Fund Study Update with Site Visit	$6,400		
					$219,400	$445,995
64	2048	2.3	Site Landscaping General Restoration	$10,000		
		3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
		4.2	Siding Repairs and Isolated Replacements	$10,000		
		4.4	Shingles Architectural Replacement	$640,000		
			Contingencies	$3,000		
					$688,000	$1,440,519
65	2049	2.2	Precast Concrete Stairs Repairs / Isolated Replacement	$15,000		
		2.2	Handrails Aluminum Repairs	Included 2.2		
		6.1	Electrical Repairs	$2,000		
			Contingencies	$3,000		
					$20,000	$43,132
66	2050	1.1	Water Mains and Supply Lines Minor Repairs / Investigation	$7,000		
		1.1	Sanitary Sewers Minor Repairs / Investigation	Included 1.1		
		1.1	Storm Sewers Minor Repairs / Investigation	Included 1.1		
		2.1	Pavers Walkways Isolated Repairs	$5,000		
		2.4	Repainting	$35,000		
		3.1	Foundation Walls Repairs	$10,000		
		3.1	Attic Major Repairs	Included 3.1		
		4.3	Front Entry Doors Replacement	$40,000		
		4.3	Garage Vehicle Door Replacement	$41,000		
			Contingencies	$3,000		
			Reserve Fund Study Update without Site Visit	$4,000		
					$145,000	$322,087

Notes:
1) Estimates for expenditures include HST and, where applicable, engineering fees.
2) Inflation assumed to be at an average of 3.0 % over the time frame examined above.

CCC 276 : Annual Major Repair & Replacement Work, Fiscal Years 2023 to 2052

Year		Description of Work		Cost	Yearly Total	Inflated Yearly Total
67	2051	3.2	Deck Structure Repairs / Isolated Replacement	$25,000		
		4.3	Front Entry Doors Replacement	$40,000		
		4.3	Garage Vehicle Door Replacement	$41,000		
			Contingencies	$3,000		
					$109,000	$249,384
68	2052	4.3	Front Entry Doors Replacement	$40,000		
		4.3	Garage Vehicle Door Replacement	$41,000		
		4.5	Sealants Replacement	$60,000		
		5.1	Condominium Office Repairs	$10,000		
		6.1	Electrical Repairs	$2,000		
			Contingencies	$3,000		
					$156,000	$367,624

Notes:
1) Estimates for expenditures include HST and, where applicable, engineering fees.
2) Inflation assumed to be at an average of 3.0 % over the time frame examined above.

APPENDIX C:
NOTICE OF
FUTURE FUNDING
OF RESERVE FUND

NOTICE OF FUTURE FUNDING OF THE RESERVE FUND

(under *subsection 94 (9)* of the *Condominium Act, 1998*)

TO: All Owners of Carleton Condominium Corporation No. 276

The Board has received and reviewed a Class 2 - Update with Site Inspection Reserve Fund Study dated March 01, 2024, prepared by Keller Engineering, and has proposed a plan for the future funding of the reserve fund that the Board of Directors has determined will ensure that, in accordance with the regulations made under the Condominium Act, 1998, the reserve fund will be adequate for the major repair and replacement of the common elements and assets of the corporation.

This notice contains:

1. A summary of the reserve fund study.
2. A summary of the proposed funding plan.
3. A statement indicating the areas, if any, in which the proposed funding plan differs from the reserve fund study.

At the present time the average contribution per unit per month to the reserve fund is $137.57. Based on the proposed funding plan, the average increase in contribution per unit per month will be $137.57 in fiscal year 2024, $17.88 in fiscal year 2025, and $19.05 in fiscal year 2026.

The proposed funding plan will be implemented on or before January 1, 2024.

Dated this _____ day of _____, 2024.

CARLETON CONDOMINIUM CORPORATION NO. 276

_____
, Director

_____
, Director

SUMMARY OF RESERVE FUND STUDY

The following is a summary of the Class 2 - Update with Site Inspection dated March 01, 2024, prepared by Keller Engineering for Carleton Condominium Corporation No. 276 (known as the 'Reserve Fund Study').

Subsection 94 (1) of the *Condominium Act, 1998* , requires the corporation to conduct periodic studies to determine whether the amount of money in the reserve fund and the amount of contributions collected by the corporation are adequate to provide for the expected costs of major repair and replacement of the common elements and assets of the corporation. As a result, the corporation has obtained the Reserve Fund Study.

The estimated expenditures from the reserve fund for the next thirty (30) years are set out in the CASH FLOW TABLE. In this summary, the term 'annual contribution' means the total amount to be contributed each year to the reserve fund, exclusive of interest earned on the reserve fund. The recommended annual contribution for 2024 is $260,828, based on the estimated expenditures and the following:

Opening Balance of the Reserve Fund:	$ 379,866
Minimum Reserve Fund Balance during the projected period:	$ 81,637
Assumed Annual Inflation Rate for Reserve Fund Expenditures:	3.0%
Assumed Annual Interest Rate for interest earned on the Reserve Fund:	2.5%

The Reserve Fund Study can be examined by making a written request to the Board of Directors of Carleton Condominium Corporation No. 276.

CASH FLOW TABLE

Opening Balance of the Reserve Fund:	$ 379,866
Current Annual Contributions:	$ 130,414
Minimum Reserve Fund Balance (as indicated in this table):	$ 81,637
Assumed Annual Inflation Rate for Reserve Fund Expenditures:	3.0%
Assumed Annual Interest Rate for interest on the Reserve Fund:	2.5%

Fiscal Year Ending	Opening Balance	Recommended Annual Total Contribution	Estimated Inflation Adjusted Expenditures	Estimated Interest Earned	Percentage Increase (Decrease) in Recommended Annual Total Contribution	Closing Balance
2023	$379,866	$130,414	$66,502	$9,464	4.0%	$453,242
2024	$453,242	$260,828	$59,740	$13,098	100.0%	$667,428
2025	$667,428	$277,782	$863,573	$0	6.5%	$81,637
2026	$81,637	$295,838	$237,122	$0	6.5%	$140,353
2027	$140,353	$304,713	$267,871	$621	3.0%	$177,816
2028	$177,816	$313,854	$17,389	$7,934	3.0%	$482,215
2029	$482,215	$323,270	$64,956	$14,472	3.0%	$755,000
2030	$755,000	$332,968	$61,494	$21,500	3.0%	$1,047,974
2031	$1,047,974	$342,957	$539,644	$16,995	3.0%	$868,282
2032	$868,282	$353,246	$617,158	$10,694	3.0%	$615,064
2033	$615,064	$363,843	$626,265	$4,268	3.0%	$356,910
2034	$356,910	$374,758	$643,669	$0	3.0%	$88,000
2035	$88,000	$386,001	$155,978	$3,126	3.0%	$321,148
2036	$321,148	$397,581	$101,329	$10,465	3.0%	$627,865
2037	$627,865	$409,508	$160,335	$16,807	3.0%	$893,846
2038	$893,846	$421,794	$144,891	$23,996	3.0%	$1,194,745
2039	$1,194,745	$434,448	$69,002	$33,574	3.0%	$1,593,765
2040	$1,593,765	$447,481	$61,155	$43,909	3.0%	$2,023,999
2041	$2,023,999	$460,905	$16,003	$55,961	3.0%	$2,524,863
2042	$2,524,863	$474,733	$66,633	$67,390	3.0%	$3,000,352
2043	$3,000,352	$488,975	$27,092	$80,444	3.0%	$3,542,679
2044	$3,542,679	$503,644	$405,544	$84,724	3.0%	$3,725,502
2045	$3,725,502	$518,753	$913,981	$76,772	3.0%	$3,407,046
2046	$3,407,046	$534,316	$424,321	$81,247	3.0%	$3,598,288
2047	$3,598,288	$550,345	$445,995	$85,687	3.0%	$3,788,325
2048	$3,788,325	$566,856	$1,440,519	$65,781	3.0%	$2,980,442
2049	$2,980,442	$583,861	$43,132	$80,731	3.0%	$3,601,902
2050	$3,601,902	$601,377	$322,087	$89,513	3.0%	$3,970,705
2051	$3,970,705	$619,418	$249,384	$100,776	3.0%	$4,441,515
2052	$4,441,515	$638,001	$367,624	$109,822	3.0%	$4,821,714

SUMMARY OF PROPOSED PLAN FOR FUTURE FUNDING OF THE RESERVE FUND

The following is a summary of the board's proposed plan for the future funding of the reserve fund.

The Board of Carleton Condominium Corporation No. 276 has reviewed the Class 2 - Update with Site Inspection dated March 01, 2024 prepared by Keller Engineering for the corporation (known as the 'Reserve Fund Study') and has proposed a plan for the future funding of the reserve fund that the Board has determined will ensure that, in accordance with the regulations made under the Condominium Act, 1998, the reserve fund will be adequate for the major repair and replacement of the common elements and assests of the corporation.

The Board has adopted the funding recommendations of the Reserve Fund Study and will implement them as set out in the CONTRIBUTION TABLE.

The annual contribution recommended under the proposed funding plan for fiscal year 2024 is $260,828, which represents an increase of 100.0% over the amount already budgeted.

The Proposed Plan for Future Funding of the Reserve Fund can be examined by making a written request to the Board of Directors of Carleton Condominium Corporation No. 276.

CONTRIBUTION TABLE

Fiscal Year Ending	A Annual Contribution*	% Increase Over Previous Year	B Other Contribution (e.g. special assessment, loan)	A + B Total Contribution Each Year to Reserve Fund
2023	$130,414	4.0%	$0	$130,414
2024	$260,828	100.0%	$0	$260,828
2025	$277,782	6.5%	$0	$277,782
2026	$295,838	6.5%	$0	$295,838
2027	$304,713	3.0%	$0	$304,713
2028	$313,854	3.0%	$0	$313,854
2029	$323,270	3.0%	$0	$323,270
2030	$332,968	3.0%	$0	$332,968
2031	$342,957	3.0%	$0	$342,957
2032	$353,246	3.0%	$0	$353,246
2033	$363,843	3.0%	$0	$363,843
2034	$374,758	3.0%	$0	$374,758
2035	$386,001	3.0%	$0	$386,001
2036	$397,581	3.0%	$0	$397,581
2037	$409,508	3.0%	$0	$409,508
2038	$421,794	3.0%	$0	$421,794
2039	$434,448	3.0%	$0	$434,448
2040	$447,481	3.0%	$0	$447,481
2041	$460,905	3.0%	$0	$460,905
2042	$474,733	3.0%	$0	$474,733
2043	$488,975	3.0%	$0	$488,975
2044	$503,644	3.0%	$0	$503,644
2045	$518,753	3.0%	$0	$518,753
2046	$534,316	3.0%	$0	$534,316
2047	$550,345	3.0%	$0	$550,345
2048	$566,856	3.0%	$0	$566,856
2049	$583,861	3.0%	$0	$583,861
2050	$601,377	3.0%	$0	$601,377
2051	$619,418	3.0%	$0	$619,418
2052	$638,001	3.0%	$0	$638,001

* The term 'annual contribution' means the amount to be contributed each year to the reserve fund from the monthly common expenses

DIFFERENCES BETWEEN THE RESERVE FUND STUDY AND THE PROPOSED PLAN FOR FUTURE FUNDING OF THE RESERVE FUND

The Plan for Future Funding of the Reserve Fund proposed by the Board differs from the Reserve Fund in the following respects:

NIL