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2014 Depreciation Report | Project 4266.10

The Electra, 989 Nelson Street, Vancouver, BC

To The Owners, Strata Plan LMS1866
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Site Visit: February 14, 2014
Submitted July 28, 2016 by
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1 Introduction

RDH Building Science Inc. (RDH) was retained by The Owners, Strata Plan LMS1866 (the Owners) to prepare a Depreciation Report (the Report) for the high-rise building known as The Electra, located at 989 Nelson Street, Vancouver, BC. The building includes two sections: Commercial and Residential. The Report considers the common property and limited common property components (the Assets) that the Strata Corporation is responsible to maintain, repair and replace.

The Report is intended to help the Owners, the strata council, and the management team make informed decisions about the allocation of resources to the common property Assets (such as roofs, windows, mechanical equipment and interior finishes).

This Report meets the requirements stipulated in the current Strata Property Act and Regulations. The Report includes a physical inventory of the common property assets; estimated costs for capital expenditures over a 30 year horizon; and four funding models. Refer to the appendices for RDH's qualifications and information on errors and omissions insurance. In accordance with the requirements of the Act, RDH declares that there is no relationship between the employees at RDH and the Owners.

Site visits were completed on February 14, 2014 and March 12, 2014 and the financial data is based on the 2015/2016 fiscal year. A draft report was distributed to the strata council and strata management on June 5, 2014, presented on November 25, 2014, and subsequently finalized to incorporate Council's feedback on July 28, 2016.

The Depreciation Report is a synopsis of many hundreds of pages of data and has two parts: the summary and the appendices. The summary is intended to provide an overview of the Depreciation Report. The appendices provide detailed information to support the summary report. The appendices include a glossary of terms. Words that are italicized are defined in the glossary.

In addition to the Report, the supporting data are available to authorized users through RDH's interactive Building Asset Management Services (BAMS) software, posted on a secure website. The data is owned by the Strata Corporation and can be printed and/or exported on request. RDH has developed the interactive software tool to enable Owners to proactively manage their funding requirements and maintenance obligations, and a variety of other services in addition to the Depreciation Report are available.

As the physical and financial status of the Assets changes, the Report will require updating. The Strata Property Act requires updates to the Report every three years; however, the Strata Corporation can choose to update portions of the Report to reflect changes to their financial status and completed work more frequently at their discretion.

2 The Electra

The Electra is a 59 year old high-rise building that was originally designated for commercial use. In 1985 The Electra underwent a major building enclosure renewal, which included the replacement of the glazing assembly. The building was then converted to a Residential Strata Corporation in approximately 1995. Furthermore, it was split into a 205 unit Commercial and 243 unit Residential sectioned Strata Corporation in approximately 1998. The building is typically of cast-in-place concrete construction with steel stud infill walls.

According to Strata Corporation representative, the Electra has been well managed and maintained for several years. They have been managed by Colyvan Pacific for the last 4-5 years and have an on-site manager that addresses various maintenance operational items.



Key physical parameters of The Electra are summarized in Table 2.1 and Figure 2.1 and 2.2 below.

TABLE 2.1 KEY PHYSICAL PARAMETERS	
Date of first occupancy (approximate)	1995
Gross floor area (approximate)	362,800
Total Area of Unit Entitlement → Residential Section → Commercial Section Total	 138,831 (approximately 60%) 95,869 (approximately 40%) 234,700
Stories above grade	23
Total number of strata lots → Residential Section → Commercial Section → Common Equipment Strata Lot (SL 448) → Facilities Strata Lot (SL 449) Total	 243 203 1 1 448

Figure 2.1
The Electra
(South west elevation)

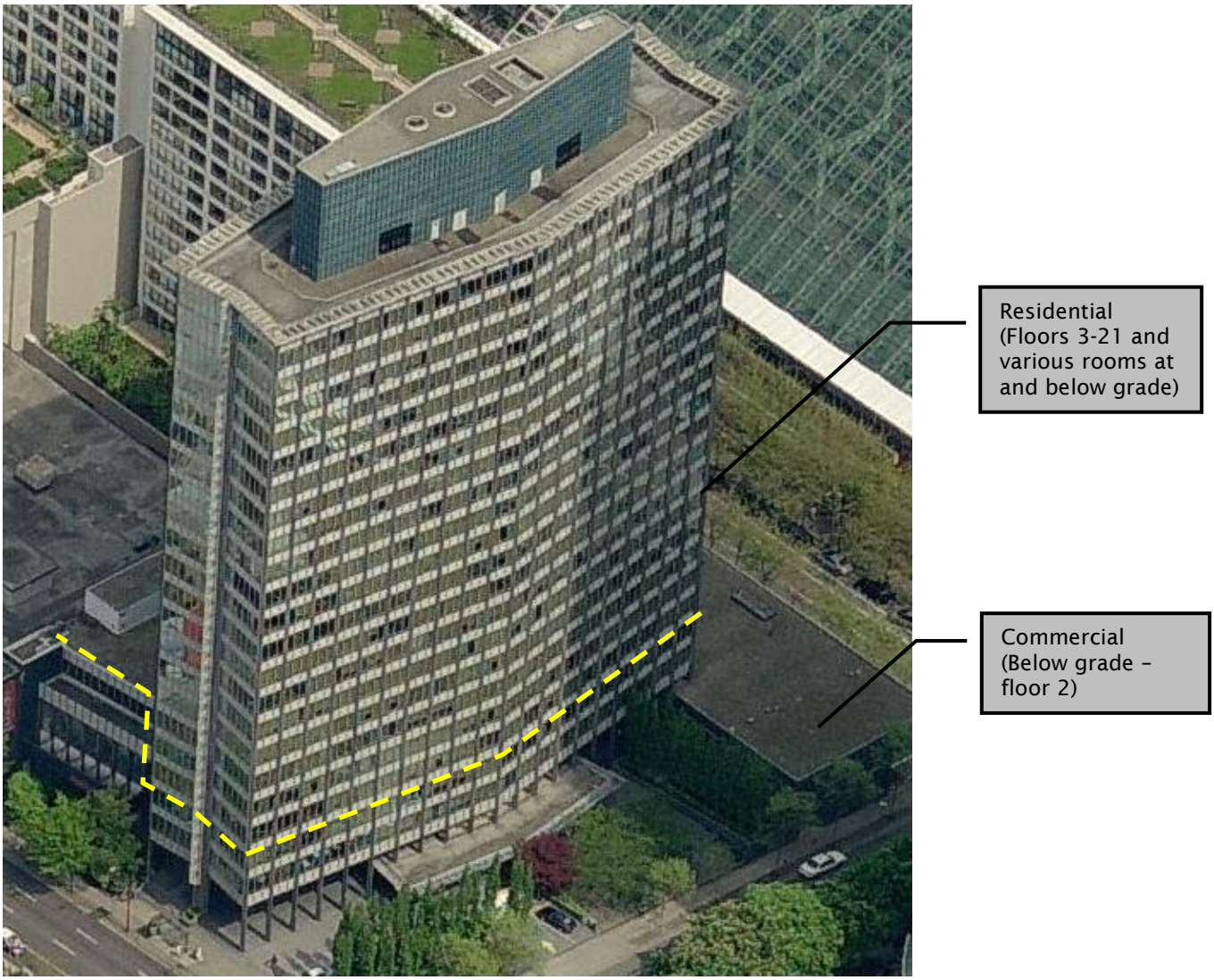

Figure 2.2 Aerial photo of The Electra (Imagery ©2014 Bing)

The Electra has a mixed-use occupancy. The commercial units occupy sections of interior space below grade to the second storey level, while the residential units occupy levels 3-21 and various rooms at and below grade (ground floor and lower main floor).

The principal systems of the Strata Corporation include the building enclosure (the separation of the interior from exterior space), electrical (the electrical, communications and security equipment), mechanical (heating, cooling, and plumbing), fire safety (sprinklers, fire detection, and egress equipment), elevators, site work, interior finishes, and amenities. The Assets within each system are described in detail in Appendix B.

Figure 2.3 below represents an example of the division of common property and limited common property as identified on the Strata Plan.

Table 2.2 SUMMARY OF COMMON PROPERTY DESIGNATION

COLOUR	DESIGNATION	RESPONSIBILITY
Yellow	CP (Common Property)	Shared
Blue	LCP - C (Limited Common Property)	Commercial Section
Red	LCP – R (Limited Common Property)	Residential Section

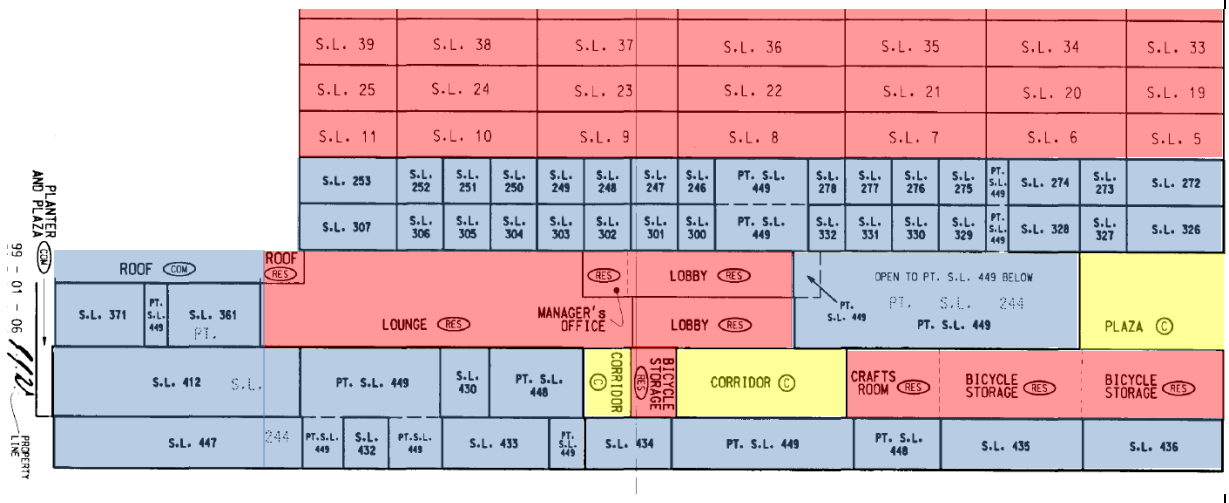

Figure 2.3 Designation of Common Property and Limited Common Property on Strata Plans (Basement level to floor five).

3 Assessments

Depreciation Reports combine two distinct types of analysis: a *physical assessment,* and a *financial assessment*. The assessments are used to determine what the Strata Corporation owns, what condition the Assets are in, what the strata is responsible for, and the *capital costs* associated with the Assets.

The process of preparing a Depreciation Report is summarized in Figure 3.1 below:

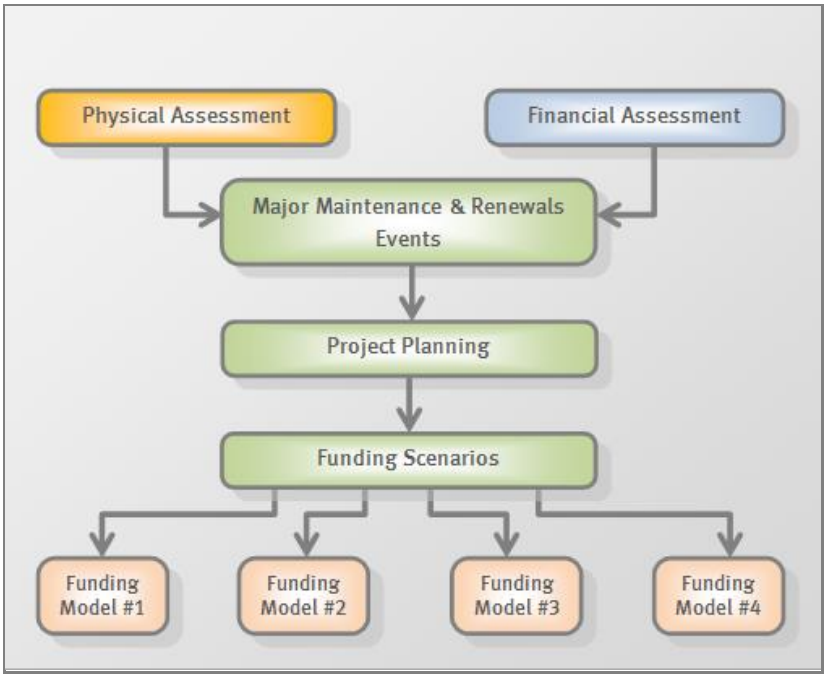

Figure 3.1

Depreciation Report Process

Funding models are built based on the strategic plan (30 years).

The following sections provide a brief overview of the physical assessment and financial assessment including a summary of key information.

3.1 Physical Assessment

The physical assessment has two parts: an inventory and an evaluation.

The *Asset Inventory* identifies "the common property, the common assets and those parts of a strata lot or limited common property, or both, that the Strata Corporation is responsible to maintain or repair under the Act, the Strata Corporation's bylaws or an agreement with an owner" (*Strata Property Act Regulation,* BC Reg 43/2000, Ch. 6.2). In other words, it identifies what the Strata Corporation owns and must repair and maintain. The Asset Inventory is included as an appendix to this report.

The evaluation is used to forecast common repairs, replacements and maintenance activities that "usually occur less often than once a year or that do not usually occur" (*Strata Property Act Regulation*, BC Reg 43/2000, Ch.6.2). In other words, the evaluation predicts only events that occur at intervals greater than one year.

The evaluation is typically based on:

→ A review of historical documentation such as minutes, invoices,

→ Discussions with Strata Corporation representatives,

→ A visual review of the building, limited to a sample of readily accessible Assets, and

→ A review of other technical information such as construction drawings, previous investigations or reports, and maintenance manuals.

Destructive testing, disassembly, and performance testing are not included in the physical evaluation; this report does not replace a Warranty Review or Condition Assessment. Please visit www.rdhbe.com for additional information on Warranty Reviews and Condition Assessments.

Failure of some Assets may be concealed, for example, buried infrastructure such as sanitary drainage lines or building enclosure assets such as cladding. For Assets with the potential for concealed failure, a number of tools are used to assign a reasonable expected service life including the typical performance of the asset in other, similar properties; the performance history reported by the Strata Corporation; the original drawings; and any previous investigation reports commissioned by the Strata Corporation. It is expected that the Strata Corporation will need more detailed reviews as Assets approach the end of their service lives. Allowances for additional reviews or investigations are included as appropriate. Recommendations taken from any additional reviews should be incorporated into future Depreciation Report updates.

The Strata Corporation has undertaken several major maintenance programs in an attempt to prolong the life of many assets, particularly with the enclosure and mechanical systems.

As part of the physical assessment, RDH compiled a history of completed projects by reviewing the documents provided by the strata and interviewing Strata Corporation representatives. The history attempts to establish the chronological age of the Assets and is summarized in Table 3.1 below.

TABLE 3.1 MAINTENANCE AND RENEWALS HISTORY

Building Enclosure	Mechanical
→ 2000 – Commissioning of a building enclosure condition assessment → 2007 – Commissioning of a building envelope condition survey & 25-year maintenance plan → 2008 – Localized repairs to mosaic tile wall cladding → 2011 – Upgrade to outer commercial lobby door → 2012 – Commissioning of a curtain wall assessment → 2015 – Commissioning of curtain wall maintenance and repair plan	→ 2007 – Replacement of DDC system → 2011 – Replacement of backflow preventer → 2012 – Replacement of thermostats throughout the building → 2012 – Replacement of toilets and urinals → 2013 – Replacement of sump pump controller → 2014 – Retrofit of booster pumps → Ongoing – Replacement of pumps, filters and fans, as required
Electrical	**Elevator**
→ 2004 – Replacement of proximity access controls → 2004 – Replacement/ upgrade to security surveillance equipment → 2010 – Replacement of enterphone system	→ 2009 – Commissioning of an elevator inspection report → 2012 – Upgrades to residential elevator machinery → 2015 – Commissioning of an elevator assessment

→ 2012 – Replacement of emergency generator → 2014 – Replacement of exterior LED vertical accent lighting	
Amenities → 2011 – Replacement of theatre room audiovisual equipment → 2012 – Replacement of common area furniture → 2014 – Repair of pool table → Ongoing – Replacement and repair of fitness equipment, as required	Interior Finishes → 2010 – Replacement of carpet flooring at elevator vestibules on floor 1 and 2 → 2014 – Replacement of elevator vestibule resilient flooring on lower main floor → 2014 – Repainting of interior walls → 2015 – Replacement of carpet flooring → Ongoing – touch-ups and localized repairs to interior finishes, as required
Fire Safety → 2012 – Replacement of fire panel and associated devices	

On February 14, 2014 and March 12, 2014 a representative of RDH Building Science Inc. visited the site to visually review the Assets. In addition, a sub consultant (Gunn Consultants Inc.) reviewed the elevators. While the Depreciation Report does not constitute a maintenance review or condition assessment, some observations regarding the general condition, design and construction of the Assets were made as part of the visual review. These observations were used to determine a reasonable estimated remaining service life of various assets. Table 3.2 includes examples of some observations made during the review.

TABLE 3.2 OBSERVATIONS BY SYSTEM

SYSTEM	OBSERVATION
Building Enclosure	→ Localized delamination of urethane top coat at mechanical roof deck of floor 22 → There is evidence of regular repainting and targeted application of sealant → Localized reports of water ingress associated with the curtain wall assembly
Electrical	→ Maintenance records indicate regular inspections of equipment
Mechanical	→ Evidence of regular maintenance and repairs → Some original (1957) equipment is still in use and maintained regularly
Interior Finishes	→ Evidence of regular repairs and touch ups to the surface of the paint

3.2 Financial Assessment

The financial assessment estimates the future costs associated with the Assets, and examines how future funding requirements will be affected by current financial practises. More specifically, the financial assessment identifies:

- → The balance in the *Contingency Reserve Fund* (CRF).
- → The estimated value of capital expenditures, expressed in *Current Year Dollars* (CYD).
- → The estimated future value of capital expenditures, expressed in *Future Year Dollars* (FYD). These costs are calculated by applying an inflation rate (2% per year) to the current costs.

The future value of major maintenance and renewal costs can be compared against the building reproduction cost. The building reproduction cost is the cost to reproduce the building in similar materials, in accordance with current market prices.

The financial assessment begins with a review of the current financial situation of the sectioned Strata Corporation. Each section has a separate operating budget and contingency reserve fund. The budgets are added together to form the Combined Operating Budget.

Table 3.3 below summarizes the key financial parameters reviewed as part of the financial assessment.

TABLE 3.3 KEY FINANCIAL PARAMETERS	
Fiscal Year End	March 31
Building Reproduction Cost	$78,565,100
Operating Budget (excluding CRF contribution)	
→ Residential	$1,186,330
→ Commercial	$525,184
Total	$1,711,514
Annual CRF Allocation (2015/2016)	
→ Residential	$50,000
→ Commercial	$20,000
Total	$70,000
Accumulated CRF Balance*	
→ Residential	$292,894
→ Commercial	$132,587
Total	$425,481

**The balance in the CRF varies each month as contributions are made and funds are withdrawn for capital renewal projects and major maintenance activities. The accumulated CRF balance is reconciled as of May 5, 2016 for both Sections.*

As a sectioned Strata Corporation, capital costs associated with several assets are shared according to a cost sharing ratio. The owners of all the residential strata lots form a separate section within the Strata Corporation consisting of all the residential strata lots in the strata plan and are referred to as the "Residential Section", while all the owners of the commercial strata lots form the "Commercial Section". As a result, some assets are wholly owned by the Residential Section, some assets are wholly owned by the Commercial Section, and some assets are owned by both the Commercial and the Residential Sections and a cost sharing ratio is applied to renewal, repair, and maintenance costs. Those Assets that are wholly the responsibility of Residential Section are identified with an "(R)" in the Asset Inventory. Those Assets that are wholly the responsibility of Commercial Section are identified with a "(C)" in the Asset Inventory. Lastly,

those Assets that are the shared responsibility of both sections are identified with a "(S)" in the Asset inventory. It is our understanding, that shared costs are apportioned based on unit entitlement. A description of which assets are associated with which section are described in Table 3.4 below.

TABLE 3.4 GOVERNANCE		
ASSET IDENTIFIER	DESCRIPTION	SAMPLE ASSETS
Residential (R)	Assets that belong to the Residential Section only *Assets located in areas identified as limited common property for the benefit of the residential suites or are used exclusively by the residential section.*	Assets within residential hallways, interior finishes, elevators, and assets within the recreational facilities.
Commercial (C)	Assets that belong to the Commercial Section only *Assets located in areas identified as limited common property for the benefit of the commercial suites.*	Hydraulic elevator for office units, commercial lobby,
Shared (S)	Assets that belong to the Strata Corporation as whole *Assets located in areas identified as common property, or as the responsibility of the Strata Corporation in the Strata Bylaws.*	Most assets in the building enclosure, fire safety control equipment, emergency generator.

Depreciation Reports include capital costs only: the costs for activities that occur at intervals greater than one year. Activities that occur annually or more frequently than once a year are considered operating expenses and are not included in the Depreciation Report funding models and calculations.

Capital costs can be distributed into three general categories:

→ *Catch-up costs*. The cost to complete any deferred maintenance and renewals

→ *Keep-up costs*. The cost to complete planned cyclical maintenance and renewals

→ *Get-ahead costs*. The cost to adapt, upgrade and improve

The Depreciation Report is based on keep-up costs. Get-ahead costs (improvements) may also be included, but only if they are required to meet changing codes or standards.

Costs are considered *Class D* estimates (±50%), as defined by the Association of Professional Engineers and Geoscientists of BC (APEG BC). Unless otherwise noted, soft costs, such as consulting fees and contingency allowances are not included, because these costs are highly dependent on the scope of work for a particular project. However, at the request of Council, RDH has incorporated the estimated repair costs, as outlined in the April 1st, 2016 BC Building Science Ltd. Report, associated with the proposed curtain wall maintenance program.

The cost estimates in the Depreciation Report are a starting point for the capital planning process, and can help Strata Corporations make preliminary decisions about how and when to implement projects. These cost estimates will be refined as the Strata Corporation makes decisions such as what is included or excluded in a project, and if Assets will be improved or changed.

The current value of many major maintenance and renewal activities is calculated by multiplying the quantity of an Asset by standard unit rates (for example, the cost per square foot or cost per linear foot). Quantities are measured from original construction documents and visual observations on site. The unit rates are based on historical information, construction trends, information from contractors, and other

sources as appropriate. Unit rates will fluctuate over time. Basic unit rates are adjusted for the relative complexity of the property. A detailed list of activities and their associated costs are available through the online BAMS software. Please contact the strata council or strata manager for additional information on how to access and view this information.

4 Expenditures

Maintenance refers to activities that preserve the Assets, to ensure the Assets will last their predicted service lives and perform as expected. Renewal refers to the replacement or refurbishment of an Asset at the end of its useful service life.

Major maintenance refers to maintenance that occurs at intervals greater than one year, for example, every 18 months or five years (less frequently than once a year). Major maintenance typically includes activities such as testing and inspecting, and is considered a capital expense. Minor maintenance includes maintenance activities that occur once a year or more frequently such as quarterly or monthly. The costs associated with *major maintenance and renewals* are included in the Depreciation Report funding models. Costs associated with minor maintenance are included in the Strata Corporation's operating budget.

4.1 Major Maintenance and Renewal Expenditures

The Electra has now been registered as a Strata Corporation for approximately 21 years, and has been through a number of major maintenance and renewal activities associated with the mechanical, electrical and interior finish systems (please refer to Table 3.1 Maintenance and Renewals History for a detailed list of projects). However, additional renewal expenditures can be anticipated over the next 10 years. Table 4.1 below summarizes all major maintenance and renewal costs by system, including costs forecast for the next 30 years.

TABLE 4.1 CAPITAL EXPENDITURES SUMMARY BY SYSTEM

SYSTEM	10 YEAR CAPITAL COSTS (WITHOUT INFLATION)	10 YEAR CAPITAL COSTS (WITH INFLATION)	30 YEAR CAPITAL COSTS (WITHOUT INFLATION)	30 YEAR CAPITAL COSTS (WITH INFLATION)
Building Enclosure	$3,200,000	$3,600,000	$14,000,000	$19,000,000
Electrical	$320,000	$360,000	$620,000	$830,000
Mechanical	$3,000,000	$3,500,000	$4,200,000	$5,400,000
Elevator	$1,000,000	$1,100,000	$1,200,000	$1,400,000
Fire Safety	$37,000	$39,000	$250,000	$340,000
Interior Finishes	$470,000	$490,000	$1,100,000	$1,500,000
Amenities	$77,000	$89,000	$170,000	$220,000
Sitework	$81,000	$88,000	$140,000	$190,000
Building Total	**$8,185,000**	**$9,266,000**	**$21,680,000**	**$28,880,000**

Section 5 discusses the timing and size of renewal projects forecast for the next 30 years. A detailed list of each major maintenance and renewals activity, including the frequency, costs expressed in current year dollars (CYD), and costs including inflation rates, expressed in future year dollars (FYD) are available to Strata Corporation owners.

Approximately 40% of the Strata Corporation's capital expenditures will occur in the next 10 years. The distribution of capital expenditures over the next 10 years is shown in Figure 4.1 below.

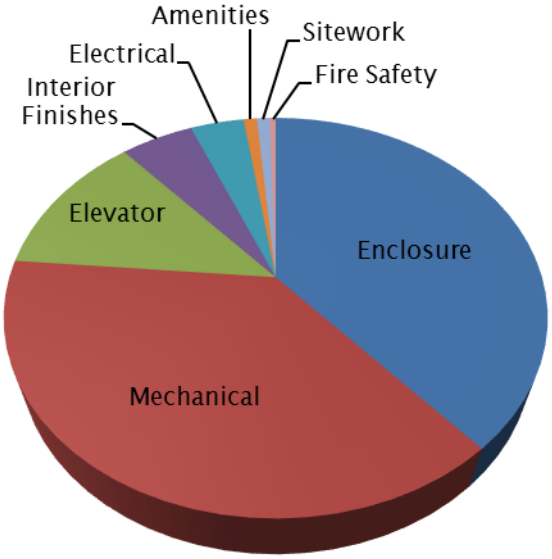

Figure 4.1 Distribution of estimated capital expenditures over 10 years by system.

5 Major Maintenance and Renewals Planning

There are three common planning horizons, used for making different types of capital planning decisions:

- ***Strategic*** (30 years): The average service life of many of Assets is approximately 25 years (such as roofs) so a long-range view captures most renewal projects. In some cases, an asset may be replaced more than once in the 30 year horizon.
- ***Tactical*** (5-10 years): Many residential Owners will own their strata lot for less than 10 years; the tactical plan captures projects that may occur while current Owners still have an interest in the Strata Corporation.
- ***Operational*** (1 year): The annual operating period encompasses one fiscal cycle (12 months). Typically the budget is presented and approved at the annual general meeting (AGM) and will include any capital expenditures paid from the CRF, as well as the CRF contributions for the year. As a minimum, the decision on the CRF contribution should consider projects forecast for the next five to ten years.

5.1 Strategic Planning Horizon

Estimated major maintenance and renewal costs over the next 30 years are shown on the graph below (Figure 5.1). The red bars represent the estimated value of capital costs for both residential and commercial sections combined.

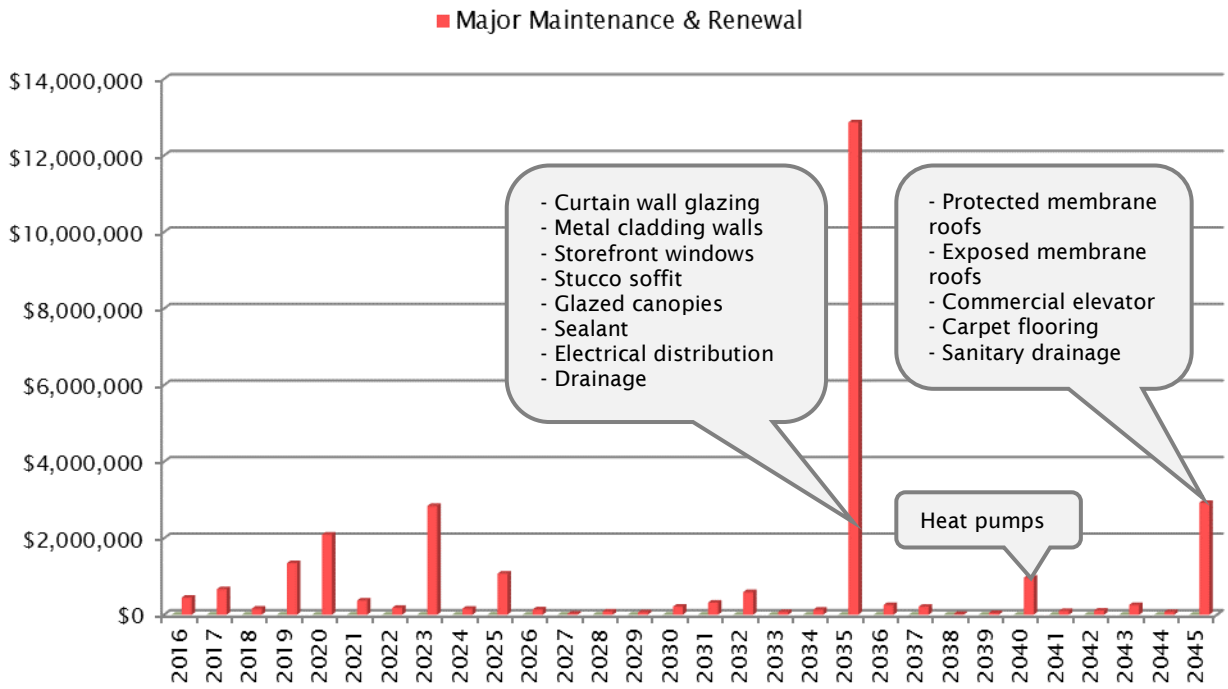

Figure 5.1 Strategic Forecast (30 Years), showing the approximate timing and value of some key capital expenditures.

Each bar on the graph represents a collection of different major maintenance and renewal activities, each with different values. The labels on the graph summarize large renewal projects forecast for that year. Detailed information about each year, including a description of the maintenance and renewal activities and estimated costs, is also available through the online version of the Depreciation Report, available through BAMS (please contact the strata council for additional information).

The renewal of the existing curtain wall system has been noted for possible completion in 2035. However, this renewal date is highly dependent on the effectiveness of the proposed maintenance program, which we understand is scheduled to commence this year and proceed for the next 10 years. Comprehensive reviews of the curtain wall system should also be completed on a regular basis to monitor performance and clarify the actual renewal date of this asset. Future Depreciation Report Updates should also be amended to account for actual performance of this asset in 3 years' time.

The strategic plan represents a reasonable estimate of future projects. The actual timing of projects may vary. Assets may be replaced earlier or later, depending on the quality of maintenance, in-service conditions and other factors. The Strata Corporation can anticipate changes to the strategic plan with each update of the Depreciation Report.

5.2 Tactical Planning Horizon

The graph below shows the projected major maintenance and renewal costs for the next ten years for both the residential and commercial sections combined (Figure 5.2). Commonly, building managers refer to a five year tactical plan; however, a ten year plan allows the Strata Corporation to see a wider range of projects.

The bars indicate the years in which an event (or bundle of events) is most likely to occur as well as the total magnitude of major maintenance and renewal costs for that year and the costs broken down by system. Labels summarize renewals and major maintenance activities forecast for that year. Soft costs associated with project implementation, such as site access, design, contract administration etc. are not included.

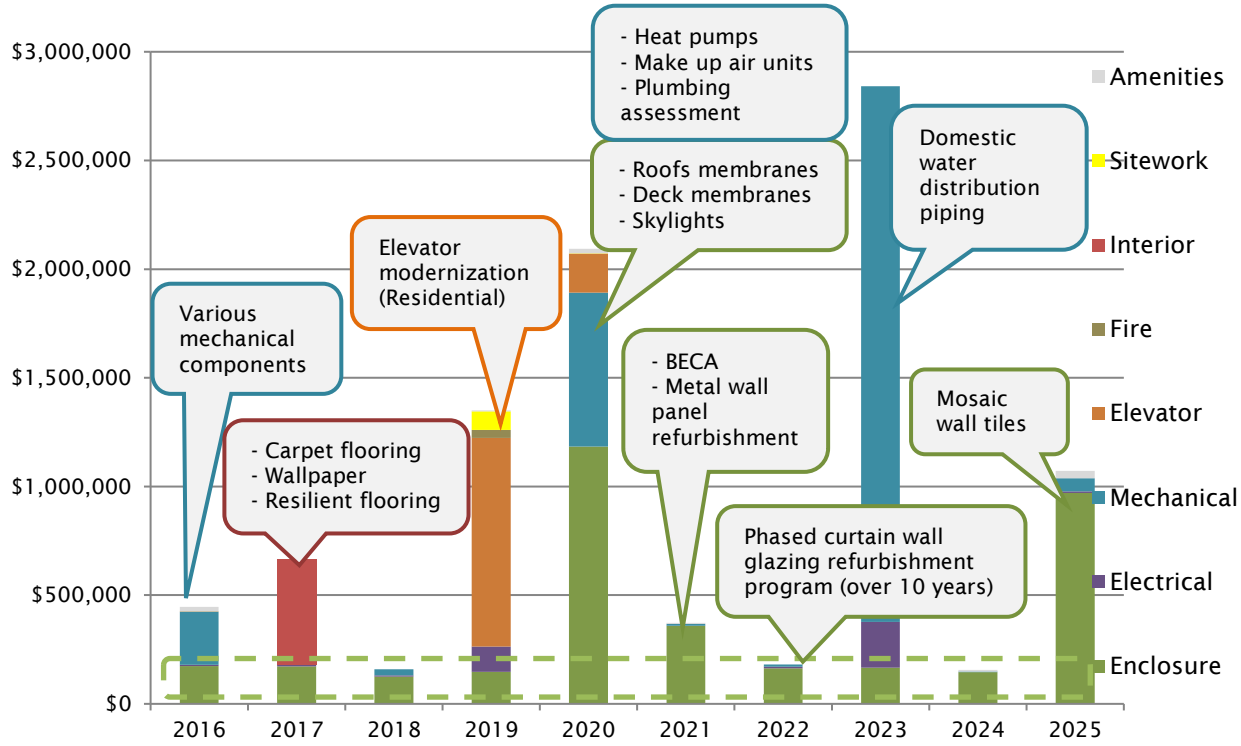

Figure 5.2 Tactical Forecast (10 years), showing the approximate timing and value of some key capital expenditures.

The tactical plan above represents one of many possible approaches to planning major maintenance and renewal activities. The Report has assumed that certain projects within the Residential and Commercial sections will be coordinated within the same year. The Strata Corporation can use this initial plan as a tool, a starting point to identify probable projects, priorities and strategies. The actual cost, timing, and scope of projects will be determined by the Strata Corporation and may be reflected in updates to the Depreciation Report.

The Strata Corporation is planning for the phased refurbishment and maintenance of the curtain wall glazing system over the next 10 years, with phase 1 beginning in 2016. This phased approach is based on the recommendations outlined in the Second Opinion Review of Glazing Systems Report prepared by BC Building Science Ltd, dated April 1, 2016. Please refer to this report for additional information. At the request of Council, we have reconciled our cost estimates against the information provided by the Strata Corporation, and have reflected the intentions of the Strata Corporation.

There are a number of mechanical assets which may require renewal within the tactical planning horizon. Assets that are forecasted for renewal range from small pumps and valves to the plumbing distribution system. The Strata Corporation should ensure that their mechanical service contractors regularly assess the mechanical assets as they approach their end of service life. In addition, an allowance is included to commission an assessment of the plumbing distribution system. The results of the piping assessment would be used to update the timing of this potential renewal project and refine the renewal cost and service live. As the building ages, it is important to regularly assess the detailed condition of various assets and monitor their performance and function. This information will allow the Strata Corporation to make informed decisions regarding renewal strategies

The elevator modernization project is scheduled for possible completion in 2019. However, given the current age of this asset, we suggest the Strata Corporation contact an elevator consultant to review the risks, should deferral of this potential project be considered.

In 2020 a bundled roof and deck project is noted for possible renewal, and in 2025 a wall cladding project is noted for possible renewal. These building enclosure projects are based on a comprehensive renewal approach. Comprehensive projects tend to provide the best overall value, incorporating cost efficiencies by not repeating work, as well as improved technical design and reduced intrusion. By globally completing these roof renewals at the same time, it will allow for effective detailing at the various interfaces and transitions.

There is an allowance to commission a building enclosure condition assessment (BECA) for a more detailed review of the building enclosure assets, and in particular, the metal panels, mosaic wall tiles, and various roof assemblies. Depending on the findings of the BECA, assets such as the roofing membranes could potentially be deferred.

To help the Strata Corporation start the project planning process, Table 5.1below categorizes some of the activities forecast for the next 10 years into different management strategies: Major maintenance, condition based renewals, and time based renewals. The categories are based on the risks associated with failure of an Asset. The list below is not comprehensive; more detailed information is available to the Strata Corporation.

TABLE 5.1 SUMMARY OF KEY PROJECTS WITHIN THE TACTICAL PLAN

CATEGORY AND ACTIVITIES
Major Maintenance Major maintenance projects are intended to preserve the assets to achieve their full design life, and typically occur on a regular, predictable basis. → Commissioning of a building enclosure condition assessment (BECA) to confirm the remaining useful service life of the building enclosure assets, in particular the roof and deck membranes → Commissioning of a comprehensive third party inspection of the domestic water distribution system, with report on service life → Recoating of exterior concrete surfaces, as required → Cleaning and localized repairs to mosaic wall tiles, as required → Replacement of exterior sealant, as required → Augering and hydro-flushing of drain lines, including in-camera scoping survey, as required → De-energizing and conducting of infrared thermography on electrical distribution equipment → Updating of the Depreciation Report every three years
Condition Based Renewals Assets are kept in service as long as possible, but the intent is to replace them before they fail. Condition based strategies require Assets be periodically reviewed in detail, potentially with some destructive testing, in order to predict when failure is likely. The actual timing of renewals in this category may be determined by the results of an assessment, or by other project planning considerations. → Phased refurbishment of the curtain wall glazing assembly → Renewal of protected roof membranes → Renewal of protected roof deck membranes → Renewal of exposed urethane roof deck membrane → Replacement of interior carpets, as required

TABLE 5.1 SUMMARY OF KEY PROJECTS WITHIN THE TACTICAL PLAN
CATEGORY AND ACTIVITIES
→ Replacement of resilient sheet flooring, as required → Replacement of wallpaper finishes, as required → Modernization of components of the proximity access control system → Replacement of domestic plumbing distribution system, as required → Replacement of fan coil units, as required → Replacement of failed or aging components of the rooftop cooling towers, as required → Replacement of pumps, valves and fans, as required
Time Based Renewals Assets are replaced on a regular, time based schedule. This strategy is used when there is low tolerance for failure or out of service conditions. Components, materials or assemblies are typically replaced or refurbished at fixed intervals. → Modernization of elevators, including the replacement of controls, drive systems, machines, door operators, and upgrade of the interior

In addition to the three categories mentioned above, the Strata Corporation may also elect to replace some Assets only once they have failed, or upon imminent failure. This strategy is known as *run to failure*. This strategy is only appropriate when failure does not create a safety hazard, will not result in damage to other property, and does not affect the operations of the building. The Strata Corporation should still have funds available to replace assets within this category.

5.3 Operational Planning Horizon

Based on the findings of the curtain wall assessment and second opinion Report, it is our understanding that the Strata Corporation is planning to begin phase 1 of the curtain wall refurbishment and maintenance program in 2016.

5.4 Project Implementation

The projects identified in the previous section represent a preliminary step, and is only intended to help the Strata Corporation identify, prioritize and plan projects. Most significant renewal projects identified in the Depreciation Report will subsequently go through four basic steps before implementing the work: Assessment, Design, Documentation and Quotation.

- → Assessment – Determines what work must be done, what should be done and what could be done in general terms. The evaluation will help the Strata Corporation understand the risks and opportunities associated with deferring or implementing renewals work.
- → Design – Refines the recommendations from the evaluation, and defines what work will be done in a specific project. The Design may include recommendations for different project strategies such as phasing or bundling projects, or may include recommendations for upgrades.
- → Documentation – Describes the project in enough technical detail to get competitive pricing.
- → Quotation – Obtains competitive pricing from different contractors or service providers to perform the work described in the documents, including alternate prices for optional work.

The time period for each step can range from a few days to a few months or more, depending on the scale of the project under consideration. The budget and scope of work will be refined in each step. Most estimates currently included in the Depreciation Report are considered Class D (±50%) due to the lack of information regarding specific projects and are based on a number of general assumptions regarding scopes of work.

The Owners can implement projects in a variety of ways, including:

- *Targeted Projects*. These projects are localized to particular portions of the building. Different exposure conditions and wear patterns may require that only some sections of the building require renewal at one point in time.
- *Phased Projects*. These projects are carried out in multiple stages rather than as a single coordinated project. Phased projects can reduce the financial burden by spreading the costs over a longer time period.
- *Comprehensive Projects*. These projects are implemented as one coordinated undertaking. Comprehensive projects may allow the Strata Corporation to leverage the best economies of scale, shorten the overall duration, and lower the overall costs.
- *Bundled Projects*. These projects bundle or combine various related renewal activities (e.g. renewals that are located in close physical proximity, or that require the same type of trades workers). Bundled projects may allow the Strata Corporation to leverage economies of scale and lower the overall costs, improve the quality of the work, and incorporate upgrades.

The scope of the Depreciation Report does not compare different implementation methods.

6 Funding Scenarios

The physical assessment and financial assessment were used to create a tentative schedule and budget for major maintenance and renewal projects. Within this section, hypothetical *funding scenarios*, also known as *funding models*, based on different annual contributions to the contingency reserve fund (CRF) are presented. The Strata Corporation can use the funding scenarios to choose an appropriate funding strategy, based on their tolerance for risk and desired standard of care for the property. RDH provides the tools so the Owners can choose the CRF contribution they prefer.

6.1 Minimum & Progressive Funding Requirements

6.1.1 Minimum Funding

The Strata Property Act Regulations dictates that if the CRF closing balance is less than 25% of the operating budget, then the Strata Corporation must contribute either the difference between the balance and 25% of the operating budget, or up to 10% of the operating budget (*Strata Property Act Regulation*, BC Reg 43/2000, Ch. 6.1). Table 6.1 below shows the calculation to confirm the Strata Corporation meets the minimum requirements set out in the Strata Property Act Regulation.

TABLE 6.1 MINIMUM FUNDING REQUIREMENT CALCULATION

PARAMETER	VALUE
2015/2016 Operating Budget - Combined (not including CRF contribution)	$ 1,711,514
→ 25% of the annual operating budget	$ 427,879
→ 10% of the annual operating budget	$ 171,151
2015 CRF Balance - Combined	$ 425,481
2015/2016 CRF Contribution - Combined	$ 70,000
Will the CRF closing balance exceed 25% of the annual operating budget at the end of the fiscal year?	Yes
Does the CRF contribution exceed 10% of the annual operating budget?	No

Although the Strata Corporation meets the statutory minimum contribution to the CRF, it is important to note that the statutory guideline is not a good measure of the financial preparedness of the corporation. If the Owners wish to avoid special levies, or to mitigate the financial hardship by reducing the number and size of the levies, then increases to the CRF contributions will need to be made over the upcoming years.

6.1.2 Progressive Funding

The progressive funding level is the annual allocation that would have been set aside since the first year of operations to ensure that the reserve balance would have been sufficient to avoid any special assessments over a 30-year period. The progressive reserve allocation is an idealistic target that most Strata Corporations will not meet and is provided for reference purposes. Table 6.2 below shows progressive funding level for both the residential and commercial sections combined.

TABLE 6.2 COMPARISON OF DIFFERENT FUNDING SCENARIOS

	PROGRESSIVE RESERVE
Annual CRF allocation	$766,000
CRF contribution per unit of unit entitlement	
Per month	$0.27
Per year	$3.26
CRF contribution per average strata lot (residential & commercial)	
Per month	$142
Per year	$1,704
Approximate number of special levies (over next 30 years)	3
Approximate value of special levies (over next 30 years)	$7.3M
Assumed Inflation Rate	2 %
Assumed Interest Rate	2 %

6.2 Alternative Funding Scenarios – Residential Section

The funding scenarios below compare the financial impact of different funding levels over the next 30 years, for the residential section. The scenarios serve as a sensitivity analysis. The scenarios allow the Strata Corporation to evaluate how changes to the contingency reserve fund impact the number and size of special levies; however, the actual size and timing of special levies will be affected by how the Strata Corporation chooses to implement the renewal projects.

While there are many different scenarios that can be generated, Table 6.3 below compares three alternatives:

- → ***Current (2015/2016) Reserve Allocation***. The CRF allocation that was approved by the Owners at the last Annual General Meeting for the Residential Section. The current allocation is also known as the status quo.
- → ***Alternative #1 Reserve Allocation***. An incremental increase from the status quo. Alternative #1 is just one of many possible scenarios for a new funding level in the next fiscal year.
- → ***Alternative #2 Reserve Allocation***. An alternative funding scenario that is based on the residential section's portion (approximately 60% based on unit entitlement) of the progressive funding level.

TABLE 6.3 COMPARISON OF DIFFERENT FUNDING SCENARIOS – RESIDENTIAL SECTION

	CURRENT (2015/2016)	ALTERNATIVE #1	ALTERNATIVE #2
Annual CRF allocation	$50,000	$100,000	$460,000
CRF contribution per unit of unit entitlement			
Per month	$0.03	$0.06	$0.28
Per year	$0.36	$0.72	$3.31
CRF contribution per average Residential strata lot			
Per month	$17	$34	$158
Per year	$204	$408	$1,896
Approximate number of special levies (over next 30 years)	22	12	3
Approximate value of special levies (over next 30 years)	$15.7M	$14.2M	$4.8M
Assumed Inflation Rate	2 %	2 %	2 %
Assumed Interest Rate	2 %	2 %	2 %

The following sections of the report provide more detailed information about each funding scenario, including a graph showing the closing balance of the CRF, annual CRF contributions, and the approximate value of special levies. Tables with ten years of cash flow data are also provided.

The appendices to the report include 30 years of cash flow data for each funding model.

6.2.1 Current (2015/2016) Funding Scenario – Residential

The first scenario is based on the current CRF contribution approved by the Owners at the last annual general meeting (2015). The scenario is based on a fixed annual CRF contribution (no increases).

TABLE 6.4 CURRENT (2015/2016) FUNDING MODEL - RESIDENTIAL: CASH FLOW TABLE

FISCAL YEAR	OPENING BALANCE	RESERVE CONTRIBUTION	SPECIAL LEVY	RESERVE INCOME	RENEWAL COSTS	CONTINGENCY COSTS	CLOSING BALANCE
2016	$292,894	$50,000	$0	$5,858	$272,240	$2,000	$74,512
2017	$74,512	$50,000	$386,558	$1,490	$485,560	$2,000	$25,000
2018	$25,000	$50,000	$49,320	$500	$97,820	$2,000	$25,000
2019	$25,000	$50,000	$1,147,000	$500	$1,195,500	$2,000	$25,000
2020	$25,000	$50,000	$1,011,860	$500	$1,060,360	$2,000	$25,000
2021	$25,000	$50,000	$246,660	$500	$295,160	$2,000	$25,000
2022	$25,000	$50,000	$49,984	$500	$98,484	$2,000	$25,000
2023	$25,000	$50,000	$1,572,220	$500	$1,620,720	$2,000	$25,000
2024	$25,000	$50,000	$47,840	$500	$96,340	$2,000	$25,000
2025	$25,000	$50,000	$618,740	$500	$667,240	$2,000	$25,000

The graph below shows the annual contribution to the CRF, the closing balance of the CRF, and the size of the special levies forecast for the next 30 years.

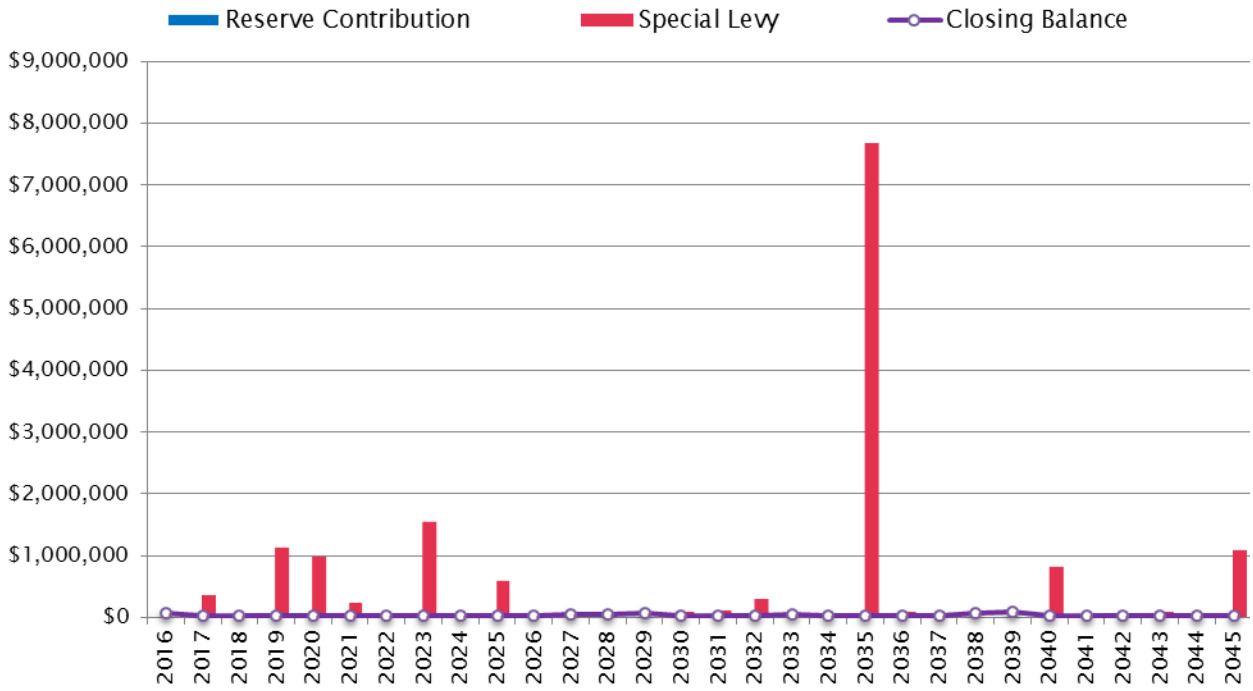

Figure 6.1 CRF balance, contribution and special levies based on the current budget.

If the Strata Corporation wishes to reduce the number and size of special levies, then increases will need to be made over the upcoming years.

6.2.2 Alternative Funding Scenario #1 – Residential

Alternative funding scenario #1 is based on a fixed annual CRF contribution. The scenario is based on a fixed annual CRF contribution (no increases).

TABLE 6.5 ALTERNATIVE FUNDING MODEL #1 - RESIDENTIAL: CASH FLOW TABLE

FISCAL YEAR	OPENING BALANCE	RESERVE CONTRIBUTION	SPECIAL LEVY	RESERVE INCOME	RENEWAL COSTS	CONTINGENCY COSTS	CLOSING BALANCE
2016	$292,894	$100,000	$0	$5,858	$272,240	$2,000	$124,512
2017	$124,512	$100,000	$285,558	$2,490	$485,560	$2,000	$25,000
2018	$25,000	$100,000	$0	$500	$97,820	$2,000	$25,680
2019	$25,680	$100,000	$1,096,306	$514	$1,195,500	$2,000	$25,000
2020	$25,000	$100,000	$961,860	$500	$1,060,360	$2,000	$25,000
2021	$25,000	$100,000	$196,660	$500	$295,160	$2,000	$25,000
2022	$25,000	$100,000	$0	$500	$98,484	$2,000	$25,016
2023	$25,016	$100,000	$1,522,204	$500	$1,620,720	$2,000	$25,000
2024	$25,000	$100,000	$0	$500	$96,340	$2,000	$27,160
2025	$27,160	$100,000	$566,537	$543	$667,240	$2,000	$25,000

Alternative funding scenario #1 eliminates some of the smaller levies, but it is not adequate to offset all the special levies over the 30-year planning horizon. The graph below shows the annual contribution to the CRF, the closing balance of the CRF, and the size of the special levies forecast for the next 30 years.

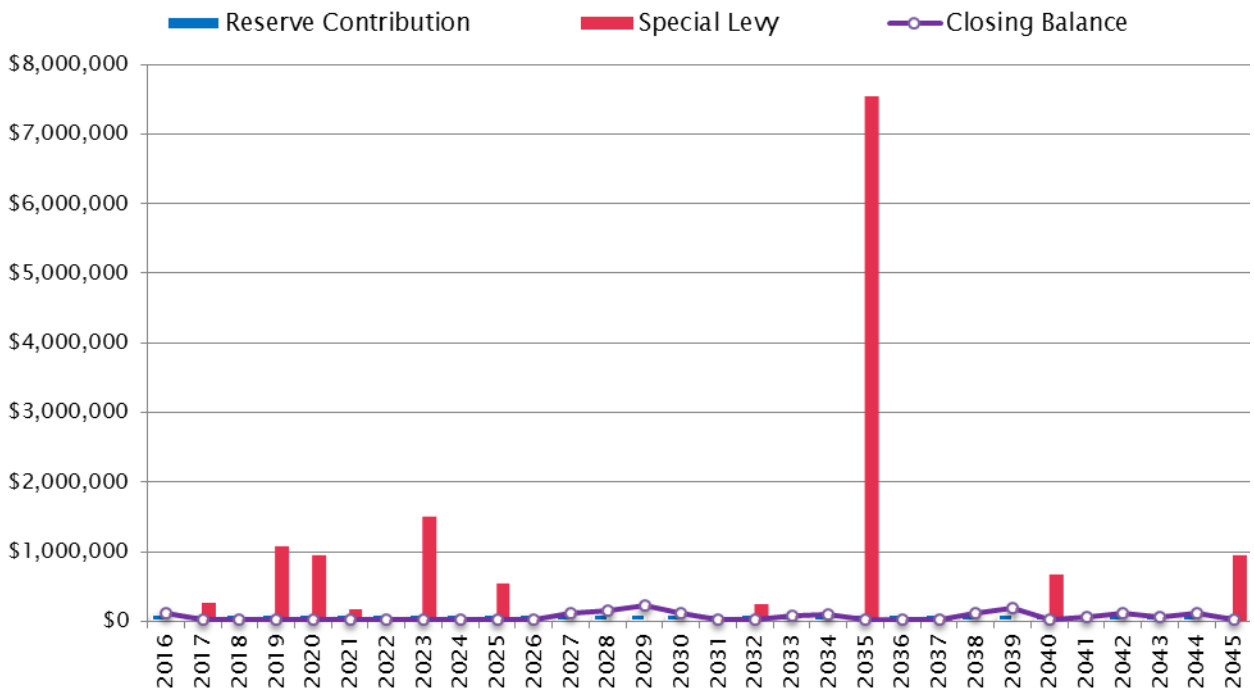

Figure 6.2 CRF balance, contribution and special levies based on Alternative #1.

6.2.3 Alternative Funding Scenario #2 - Residential

The alternative funding scenario #2 is based on a fixed annual CRF contribution. The scenario is based on a fixed annual CRF contribution (no increases).

TABLE 6.6 ALTERNATIVE FUNDING MODEL #2 - RESIDENTIAL: CASH FLOW TABLE

FISCAL YEAR	OPENING BALANCE	RESERVE CONTRIBUTION	SPECIAL LEVY	RESERVE INCOME	RENEWAL COSTS	CONTINGENCY COSTS	CLOSING BALANCE
2016	$292,894	$460,000	$0	$5,858	$272,240	$2,000	$484,512
2017	$484,512	$460,000	$0	$9,690	$485,560	$2,000	$466,642
2018	$466,642	$460,000	$0	$9,333	$97,820	$2,000	$836,155
2019	$836,155	$460,000	$0	$16,723	$1,195,500	$2,000	$115,378
2020	$115,378	$460,000	$509,674	$2,308	$1,060,360	$2,000	$25,000
2021	$25,000	$460,000	$0	$500	$295,160	$2,000	$188,340
2022	$188,340	$460,000	$0	$3,767	$98,484	$2,000	$551,623
2023	$551,623	$460,000	$625,065	$11,032	$1,620,720	$2,000	$25,000
2024	$25,000	$460,000	$0	$500	$96,340	$2,000	$387,160
2025	$387,160	$460,000	$0	$7,743	$667,240	$2,000	$185,663

Alternative funding scenario #2 eliminates all of the smaller levies, but it is not adequate to offset all the special levies over the 30-year planning horizon. The graph below shows the annual contribution to the CRF, the closing balance of the CRF, and the size of the special levies forecast for the next 30 years.

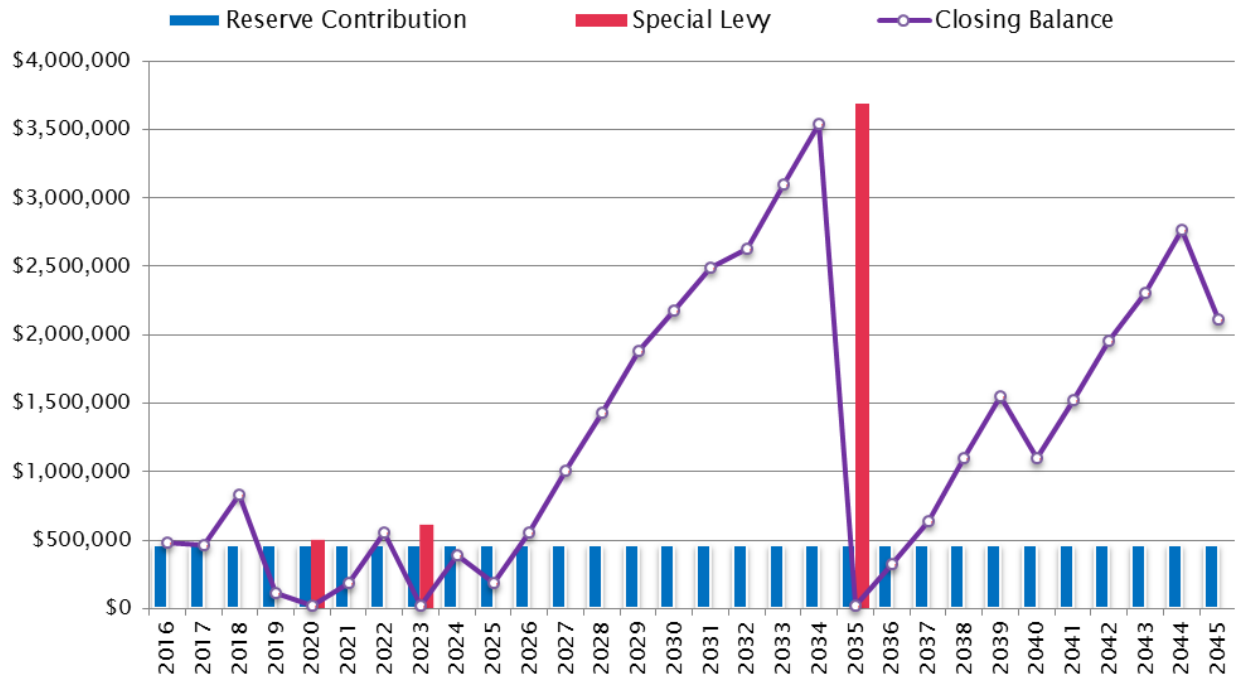

Figure 6.3 CRF balance, contribution and special levies based on Alternative #2.

6.3 Alternative Funding Scenarios – Commercial Section

The funding scenarios below compare the financial impact of different funding levels over the next 30 years, for the commercial section. The scenarios serve as a sensitivity analysis. The scenarios allow the Strata Corporation to evaluate how changes to the contingency reserve fund impact the number and size of special levies; however the actual size and timing of special levies will be affected by how the Strata Corporation chooses to implement the renewal projects.

While there are many different scenarios that can be generated, Table 6.7 below compares three alternatives:

- → ***Current (2015/2016) Reserve Allocation***. The CRF allocation that was approved by the Owners at the last Annual General Meeting for the Commercial Section. The current allocation is also known as the status quo.
- → ***Alternative #1 Reserve Allocation***. An incremental increase from the status quo. Alternative #1 is just one of many possible scenarios for a new funding level in the next fiscal year.
- → ***Alternative #2 Reserve Allocation***. An alternative funding scenario that is based on the commercial section's portion of the progressive funding level.

TABLE 6.7 COMPARISON OF DIFFERENT FUNDING SCENARIOS – RESIDENTIAL SECTION

	CURRENT (2015/2016)	ALTERNATIVE #1	ALTERNATIVE #2
Annual CRF allocation	$20,000	$100,000	$306,000
CRF contribution per unit of unit entitlement			
Per month	$0.02	$0.09	$0.27
Per year	$0.21	$1.04	$3.19
CRF contribution per average Commercial strata lot			
Per month	$8	$41	$124
Per year	$96	$492	$1,488
Approximate number of special levies (over next 30 years)	25	7	2
Approximate value of special levies (over next 30 years)	$10.7M	$8.2M	$2.6M
Assumed Inflation Rate	2 %	2 %	2 %
Assumed Interest Rate	2 %	2 %	2 %

The following sections of the report provide more detailed information about each funding scenario, including a graph showing the closing balance of the CRF, annual CRF contributions, and the approximate value of special levies. Tables with ten years of cash flow data are also provided.

The appendices to the report include 30 years of cash flow data for each funding model.

6.3.1 Current (2015/2016) Funding Scenario – Commercial

The first scenario is based on the current CRF contribution approved by the Owners at the last annual general meeting (2015) for the Commercial Section. The scenario is based on a fixed annual CRF contribution (no increases).

TABLE 6.8 CURRENT (2015/2016) FUNDING MODEL - COMMERCIAL: CASH FLOW TABLE

FISCAL YEAR	OPENING BALANCE	RESERVE CONTRIBUTION	SPECIAL LEVY	RESERVE INCOME	RENEWAL COSTS	CONTINGENCY COSTS	CLOSING BALANCE
2016	$132,587	$20,000	$45,121	$2,652	$173,360	$2,000	$25,000
2017	$25,000	$20,000	$163,540	$500	$182,040	$2,000	$25,000
2018	$25,000	$20,000	$42,980	$500	$61,480	$2,000	$25,000
2019	$25,000	$20,000	$135,900	$500	$154,400	$2,000	$25,000
2020	$25,000	$20,000	$1,014,540	$500	$1,033,040	$2,000	$25,000
2021	$25,000	$20,000	$58,340	$500	$76,840	$2,000	$25,000
2022	$25,000	$20,000	$64,156	$500	$82,656	$2,000	$25,000
2023	$25,000	$20,000	$1,201,980	$500	$1,220,480	$2,000	$25,000
2024	$25,000	$20,000	$40,860	$500	$59,360	$2,000	$25,000
2025	$25,000	$20,000	$386,660	$500	$405,160	$2,000	$25,000

The graph below shows the annual contribution to the CRF, the closing balance of the CRF, and the size of the special levies forecast for the next 30 years.

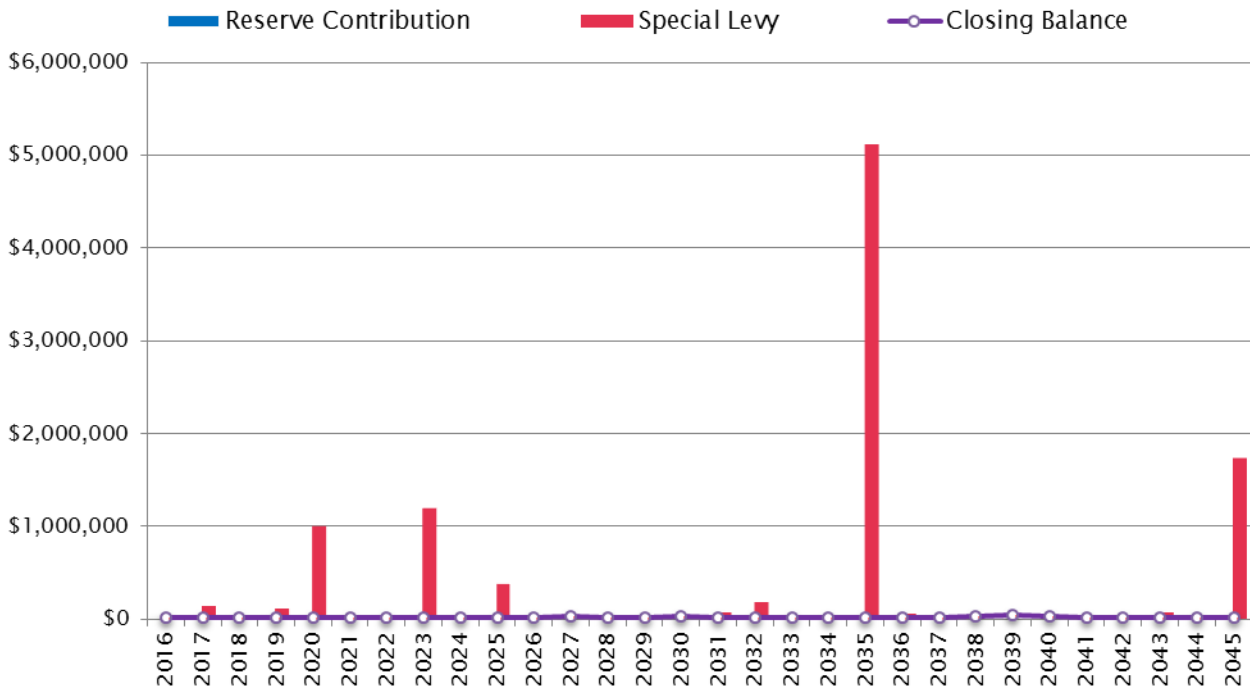

Figure 6.4 CRF balance, contribution and special levies based on the current budget.

If the Strata Corporation wishes to reduce the number and size of special levies, then increases will need to be made over the upcoming years.

6.3.2 Alternative Funding Scenario #2 – Commercial

Alternative funding scenario #2 is based on a fixed annual CRF contribution. The scenario is based on a fixed annual CRF contribution (no increases).

TABLE 6.9 ALTERNATIVE FUNDING MODEL #2 - COMMERICAL: CASH FLOW TABLE

FISCAL YEAR	OPENING BALANCE	RESERVE CONTRIBUTION	SPECIAL LEVY	RESERVE INCOME	RENEWAL COSTS	CONTINGENCY COSTS	CLOSING BALANCE
2016	$132,587	$100,000	$0	$2,652	$173,360	$2,000	$59,879
2017	$59,879	$100,000	$47,964	$1,198	$182,040	$2,000	$25,000
2018	$25,000	$100,000	$0	$500	$61,480	$2,000	$62,020
2019	$62,020	$100,000	$18,140	$1,240	$154,400	$2,000	$25,000
2020	$25,000	$100,000	$934,540	$500	$1,033,040	$2,000	$25,000
2021	$25,000	$100,000	$0	$500	$76,840	$2,000	$46,660
2022	$46,660	$100,000	$0	$933	$82,656	$2,000	$62,937
2023	$62,937	$100,000	$1,083,284	$1,259	$1,220,480	$2,000	$25,000
2024	$25,000	$100,000	$0	$500	$59,360	$2,000	$64,140
2025	$64,140	$100,000	$266,737	$1,283	$405,160	$2,000	$25,000

Alternative funding scenario #2 eliminates some of the smaller levies, but it is not adequate to offset all the special levies over the 30-year planning horizon. The graph below shows the annual contribution to the CRF, the closing balance of the CRF, and the size of the special levies forecast for the next 30 years.

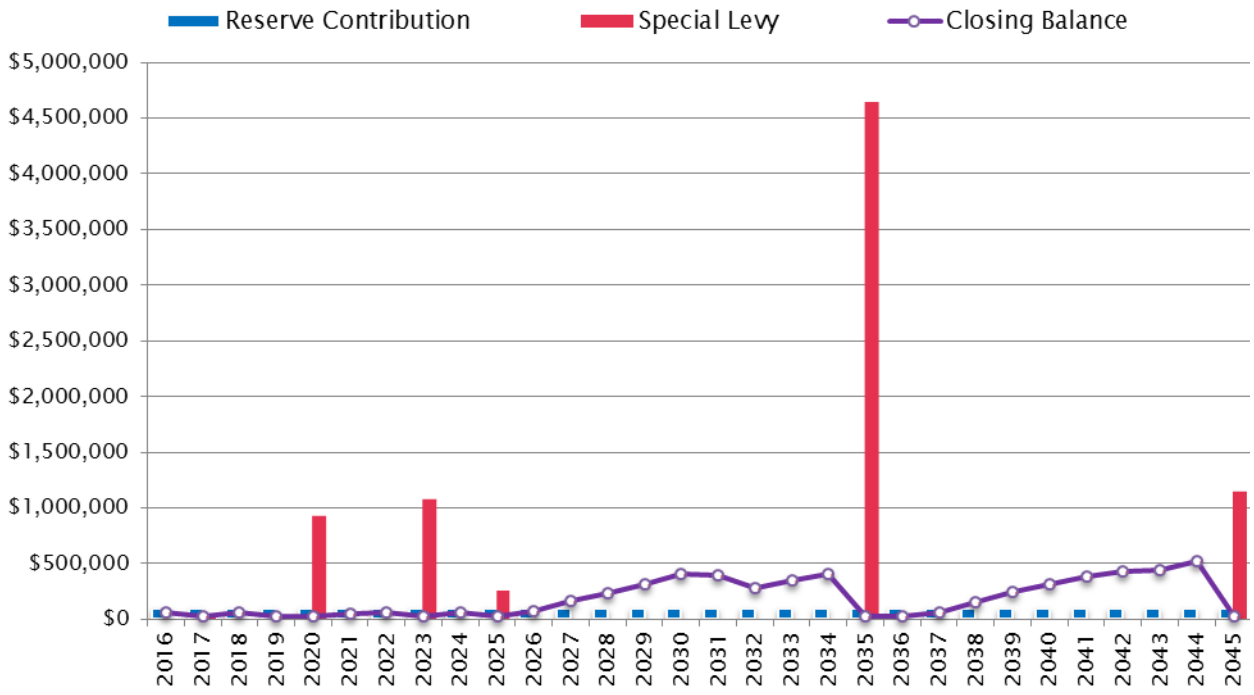

Figure 6.5 CRF balance, contribution and special levies based on Alternative #2.

6.3.3 Alternative Funding Scenario #2 - Commercial

The alternative funding scenario #2 is based on a fixed annual CRF contribution. The scenario is based on a fixed annual CRF contribution (no increases).

TABLE 6.10 ALTERNATIVE FUNDING MODEL #2 - COMMERICAL: CASH FLOW TABLE

FISCAL YEAR	OPENING BALANCE	RESERVE CONTRIBUTION	SPECIAL LEVY	RESERVE INCOME	RENEWAL COSTS	CONTINGENCY COSTS	CLOSING BALANCE
2016	$132,587	$306,000	$0	$2,652	$173,360	$2,000	$265,879
2017	$265,879	$306,000	$0	$5,318	$182,040	$2,000	$393,156
2018	$393,156	$306,000	$0	$7,863	$61,480	$2,000	$643,539
2019	$643,539	$306,000	$0	$12,871	$154,400	$2,000	$806,010
2020	$806,010	$306,000	$0	$16,120	$1,033,040	$2,000	$93,091
2021	$93,091	$306,000	$0	$1,862	$76,840	$2,000	$322,112
2022	$322,112	$306,000	$0	$6,442	$82,656	$2,000	$549,899
2023	$549,899	$306,000	$380,583	$10,998	$1,220,480	$2,000	$25,000
2024	$25,000	$306,000	$0	$500	$59,360	$2,000	$270,140
2025	$270,140	$306,000	$0	$5,403	$405,160	$2,000	$174,383

Alternative funding scenario #2 eliminates all of the smaller levies, but it is not adequate to offset all the special levies over the 30-year planning horizon. The graph below shows the annual contribution to the CRF, the closing balance of the CRF, and the size of the special levies based forecast for the next 30 years.

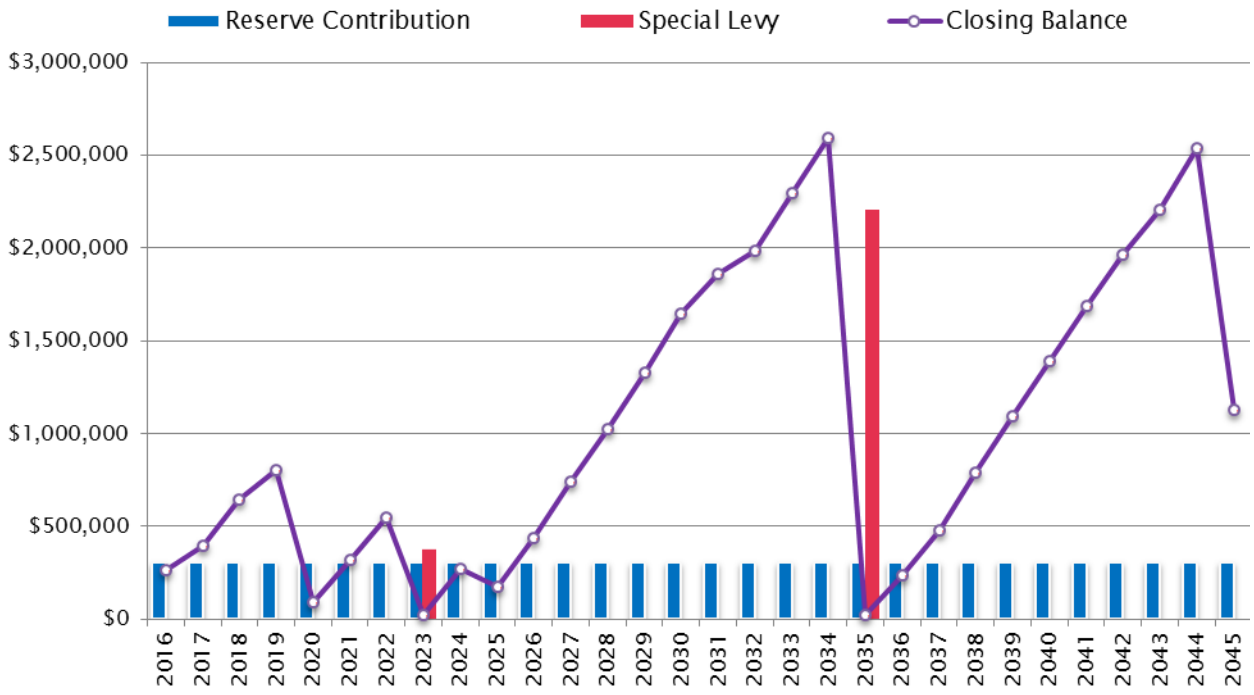

Figure 6.6 CRF balance, contribution and special levies based on alternative #2.

7 Next Steps

The Depreciation Report identifies the possible major maintenance and renewal expenditures The Electra may encounter over the next 30 years. Estimated timelines have been provided to assist the Strata Corporation with the planning process; however, the Depreciation Report should be considered a first step when planning for renewals. Funding scenarios have been developed to provide the Strata Corporation with an objective basis for determining appropriate CRF contributions.

The Electra has been registered as a Strata Corporation for approximately 21 years, and several assets such as the existing roofing membranes, curtain wall glazing, and plumbing distribution system may require renewal in the next 10 years. However, a substantial portion of the tactical planning horizon costs relate to major maintenance of the existing glazing system, which should include the implementation of a water shedding improvements.

The recommendations below are intended to aid the Strata Corporation in the next steps of the renewals planning process.

Recommendations

- **Reciprocal Cost Sharing Formulas**. Reconciliation of cost sharing arrangements between the Strata Corporation Sections.
- **Curtain Wall Strategic Planning.** Develop and proceed with a renewals approach associated with the existing glazing system.
- **Asset Replacement Policy**. Using the Asset Inventory, develop an asset replacement policy. The policy would assign replacement strategies (run-to-failure, condition based, or time-based) to assets.
- **Maintenance Plan**. Using the Asset Inventory, develop a maintenance plan, or commission a maintenance plan through RDH. The maintenance plan should provide the Strata Corporation with information on how and when to implement different maintenance activities.
- **Building Enclosure Condition Assessment**. Conduct a Condition Assessment of the building enclosure prior to or in conjunction with the update to the Depreciation Report in three years' time. The condition assessment will confirm and refine the estimated remaining service lives of enclosure assets, including the curtain wall system (regular reviews of the curtain wall system are encouraged). Update the Report with these findings and recommendations as may be required.
- **Further Investigations.** Conduct additional condition assessments/investigations, as required, to refine the data and confirm assumptions.
- **Updates.** Plan for an update to the Depreciation Report in three years' time. On a yearly basis, the Stata should review and update their CRF funding strategy based on the estimated forecasts presented in the Report.
- **Project Planning**. The following projects has been identified as a possible priority, and the Strata Corporation should consider reviewing and/or completing this project prior to the update of the Depreciation Report in three years' time.
    - Begin the phased refurbishment/maintenance program of the curtain wall glazing system.

Sincerely,

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Appendix A

Glossary of Terms

Glossary

Annual Contribution – Funds allocated to the Reserve Fund each fiscal year. Sometimes referred to as the Annual Allocation. Determining the appropriate size of the Annual Allocation is aided with a Reserve Study (a Depreciation Report in B.C.).

Asset – An integrated assembly of multiple physical components, which requires periodic maintenance, repair and eventual renewal. Typical examples of assets are: roofs, boilers and hallway carpets.

Catch-up Costs – The costs associated with the accumulated backlog of deferred maintenance associated with the assets.

Chronological Age – The age of an asset relative to its date of installation (current year minus year of installation).

Classes of Cost Estimates – Until a project is actually constructed, a cost estimate represents the best judgement of the professional according to their experience and knowledge and the information available at the time. Its completeness and accuracy is influenced by many factors, including the project status and development stage. Estimates have a limited life and are subject to inflation and fluctuating market conditions. The precision of cost estimating is categorized into the following four classes and are as defined in guidelines prepared by the Association of Professional Engineers and Geoscientists of B.C. The percentage figures in parentheses refer to the level of precision or reliability of the cost estimates.

- → **Class A Estimate** (±10-15%): A detailed estimate based on quantity take-offs from final drawings and specifications. It is used to evaluate tenders or as a basis of cost control during day-labour construction.
- → **Class B Estimate** (±15-25%): An estimate prepared after site investigations and studies have been completed, and the major systems defined. It is based on a project brief and preliminary design. It is used for obtaining effective project approval and for budgetary control.
- → **Class C Estimate** (±25-40%): An estimate prepared with limited site information and based on probable conditions affecting the project. It represents the summation of all identifiable project elemental costs and is used for program planning, to establish a more specific definition of client needs and to obtain preliminary project approval.
- → **Class D Estimate** (±50%): A preliminary estimate which, due to little or no site information, indicates the approximate magnitude of cost of the proposed project, based on the client's broad requirements. This overall cost estimate may be derived from lump sum or unit costs for a similar project. It may be used in developing long term capital plans and for preliminary discussion of proposed capital projects.

Closing Balance – Alternatively referred to as the Starting Balance. The balance of funds remaining in the reserve account at the end of a fiscal period (Fiscal year end, calendar year or study period). The Closing Balance becomes the Opening Balance for the subsequent fiscal period.

Contingency Costs – An allowance for unexpected or unforeseen costs that may impact monies required for projects to maintain or replace assets. (Not to be confused with costs of Renewal or Major Maintenance projects which are paid for out of the Reserve Fund (otherwise known the Contingency Reserve Fund.)

Contribution Threshold - A dollar value which dictates the size of the Contingency Reserve Fund (CRF) contribution based on whether the accumulated CRF balance is greater than or less than the specified dollar value. For example, the Strata Property Act indicates that if the closing balance of the CRF at the end of the fiscal year is less than 25% of the operating budget for the next fiscal year, then the CRF contribution for the next fiscal year should be a minimum of 10% of the operating budget. In this case, the threshold is 25% of the operating budget.

Current Dollars – Dollars in the year they were actually received or paid, unadjusted for price changes.

Effective Age – An assessment of the age of an asset relative to its condition and how that condition may have accelerated or decelerated the chronological age of the asset (service life minus remaining service life).

Funding Model – A mathematical model used to establish an appropriate funding level for sustaining the assets in a building. Running a number of scenarios out of the funding model using different parameters (such as inflation rates and interest rates) can serve as a sensitivity analysis to determine the financial impact of different funding levels.

Future Dollars – The projected cost of future asset renewal projects, which accounts for inflation and escalation factors.

Get Ahead Costs – These are costs associated with adaptation of the building to counter the forces of retirement associated with different forms of obsolescence, such as:

- → Functional obsolescence
- → Legal obsolescence
- → Style obsolescence

Some of the costs in this category are discretionary spending that result in either a change or an improvement to the existing strata building. This category includes projects to alter the physical plant for changes in use, codes and standards. Some typical examples include:

- → Energy retrofits
- → Code retrofits
- → Hazardous material abatement
- → Barrier free access retrofits
- → Seismic Upgrades

Keep-up Costs – The monies required for renewal projects as each asset reaches the end of its useful service life. If an asset is not replaced at the end of its useful service life

and is kept in operation, through targeted repairs, then these costs get reclassified into the "catch-up" category.

Major Maintenance – Any maintenance work for common expenses that usually occurs less often than once a year or that do not usually occur. Major maintenance provides for the preservation of assets to ensure that they achieve their full intended service life.

Next Renewal Year - The forecasted date of asset replacement or renewal.

Opening Balance – Alternatively referred to as the Starting Balance. The amount of money in an account at the beginning of a fiscal period. Opening balances are derived from the balance sheet and are used in cash flow calculations in the Funding Model.

Operating Costs – Frequently recurring expenses that arise during the course of a single fiscal year and are paid from the operating budget as opposed to the Reserve Fund.

Operational Plan/Horizon (1 year) – The annual operating period encompasses one fiscal cycle (12 months). The Reserve Contribution in the operating budget should reflect the majority of the projects in the Tactical Plan (5 years) and ideally should also contemplate elements of the Strategic Plan (30 years).

Percent Funded – The ratio, at a particular point of time (typically the beginning of the fiscal year), of the actual or projected Reserve Fund balance to the accrued Reserve Fund balance, expressed as a percentage. For example: If the 100% funded balance is $100,000 and there is $76,000 in the Reserve Fund, the Reserve Fund is 76% funded.

Since funds can typically be allocated from one asset to another with ease, this parameter has no real meaning on an individual reserve component basis. The purpose of this parameter is to identify the relative strength or weakness of the entire Reserve Fund at a particular point in time. The value of this parameter is to provide a more stable measure of Reserve Fund strength, since cash in reserve may mean very different things to different governing bodies or Owner groups.

- → **Poor Level.** When the Percent Funded falls to 0% - 30%, the current reserves may be considered to be at a 'poor' level. At this funding level, Special Levies are common. This is also commonly known as the Unfunded or Special Levy Model. The Owner Group does not have a Reserve Fund balance that will cover expected renewal costs and the only recourse is to raise funds by Special Levies to cover those costs when they become due.
- → **Fair Level.** If the Percent Funded level is 31 to 70% then the current reserve may be considered to be in a mid-range level.
- → **Good Level.** If the Percent Funded level is 70% or higher this is likely to be considered 'strong' because cash flow problems are rare.

Renewal – The replacement of an Asset as it reaches the end of its useful service life.

Renewal Cost – The cost required to replace an Asset, which is paid from the Reserve Fund, Special Levy or combination thereof.

Reserve Contribution – See Annual Contribution.

Reserve Fund – Also known as the Contingency Reserve Fund (CRF). The account in which the accumulated Annual Contributions are deposited and from which costs are withdrawn for Renewal projects and Major Maintenance projects.

Reserve Income – The interest earned from investing the money deposited in the Reserve Fund.

Reserve Study – Also referred to as a Reserve Fund Study or Depreciation Report in BC.

- → A long-range financial planning tool that identifies the current status of the Owners' Reserve Fund and recommends a stable and equitable funding plan to offset the costs of anticipated future major expenditures associated with replacement of the assets and major maintenance.
- → The purpose of the Reserve Study is to provide a plan for appropriate funding for renewal and major maintenance work.
- → While Reserve Studies provide analysis of the timing, costs and funding for renewal projects, they should ideally be supported by a maintenance plan that assists the Owners to plan for maintenance activities so that assets achieve their predicted service lives.

Service Life - The estimated period of time over which an asset (and its components or assembly) provides adequate performance and function.

Special Levy – Also referred to as a "Special Assessment". A financial levy to be paid by the Owner group to finance large-scale projects for major maintenance, repairs, renewal and rehabilitation of an asset, which occur as result of a shortfall in available funds and requires special decision making and approval procedures. A Reserve Study contains funding scenarios that assist the Owners in long-range financial planning.

Statutory Funding Model - A funding model which uses the Strata Property Act and Regulations to determine the minimum amount of money to contribute to the Contingency Reserve Fund on an annual basis.

Strategic Horizon – The longest of the three planning horizons, which typically covers the full study period of 30 years and identifies the long-term needs of the assets.

Style Obsolescence – When an asset is no longer desirable because it has fallen out of popular fashion, its style is obsolete. Some assets, particularly interior furnishings, reflect fashion cycles and can become out-dated.

Tactical Plan/Horizon – A period of planning for asset Renewal projects and Major Maintenance projects, which typically extends five years from the current year.

Appendix B

Asset Inventory

Electra
Asset Inventory

Enclosure

Roofs & Decks

Encl 01 - Protected Membrane Roof [S]

Location

Upper roof and inside sections of lower roof. Mezzanine level roof over the amenity room.

Description

Membrane overlaid with combination of drainage mat, insulation, and ballast.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Encl 02 - Protected Membrane Roof [C]

Location

Commercial rooftops.

Description

Membrane overlaid with combination of drainage mat, insulation, and ballast.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Encl 03 - Exposed SBS Membrane Roof [S]

Location

Lower roof.

Description

Bituminous and modified bituminous (SBS)(styrene-butadiene-styrene) membrane at low-slope roof. (Conventional assembly would include insulation and overlay board.)

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Encl 04 - Exposed Urethane Membrane Deck [S]

Location

Level 22, roof slab.

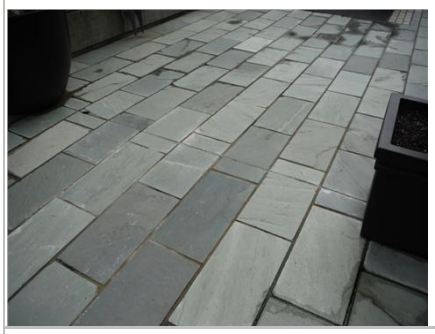
Description

Liquid applied urethane membrane applied over concrete roof/deck substrate.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	20
Next Renewal Year:	2016

Encl 05 - Protected Membrane Deck [R]



Location

Main floor amenity roof deck.

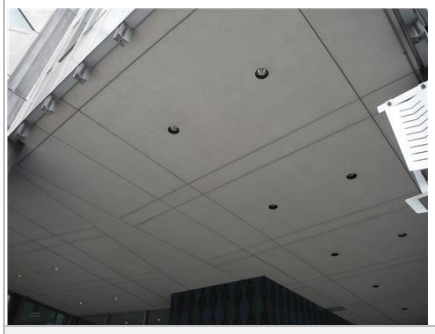
Description

Membrane overlaid with combination of drainage mat, insulation, pavers and/or landscaping overburden.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	19
Next Renewal Year:	2017

Encl 06 - Stucco Clad Soffit [S]



Location

Ground level soffit at main entry.

Description

Stucco cladding over supporting structure.

Information

Service Life:	40
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2035

Fall Protection

Encl 07 - Anchor Fall Protection Equipment [S]

Location

Rooftop.

Description

Safety anchoring system for work on exterior walls and roofs.

Information

Service Life:	50
Installed Year:	2011
Chronological Age:	5
Effective Age:	5
Next Renewal Year:	2061

Walls

Encl 08 - Prefinished Metal Cladding Wall [S]

Location

Metal clad columns at all building elevations.

Description

Prefinished metal cladding fastened with framing and anchorage system, concealed fasteners, to create drainage over sheathing membrane.

Information

Service Life:	40
Installed Year:	1985
Chronological Age:	31
Effective Age:	21
Next Renewal Year:	2035

Encl 09 - Mosaic Tile Wall [S]

Location

Ground level and rooftop wall cladding.

Description

Coloured mosaic ceramic tile on mortar bed and substrate with grout and sealant at interfaces.

Information

Service Life:	40
Installed Year:	1985
Chronological Age:	31
Effective Age:	31
Next Renewal Year:	2025

Encl 10 - Coated Architectural Concrete Wall [S]

Location

Ground level, east elevation.

Description

Poured-in-place architectural concrete wall with protective coating.

Information

Service Life:	75
Installed Year:	1957
Chronological Age:	59
Effective Age:	59
Next Renewal Year:	2032

Encl 11 - Stucco Clad Wall - Undrained [S]

Location

Wall cladding at the amenity room roof deck.

Description

Acrylic coated stucco applied directly over exterior sheathing membrane.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	19
Next Renewal Year:	2017

Glazing Systems

Encl 12 - Aluminum Storefront [S]

Location

Lobby entrances.

Description

Aluminum framed, thermally broken, storefront system with insulating glazing units, and no operators.

Information

Service Life:	40
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2035

Encl 13 - Curtain Wall - Stick Capped [S]

Location

All levels and all elevations of the building.

Description

Curtain wall, stick built assembly, capped 4 sides, with double insulating glazing units and awning operators. A phased renewal approach will be implemented, as discussed with BC Building Science Ltd. Please refer to the 2016 Second Opinion Review of Glazing Systems Report by BC Building Science Ltd.

Information

Service Life:	40
Installed Year:	1985
Chronological Age:	31
Effective Age:	21
Next Renewal Year:	2035

Encl 14 - T-Bar Skylight [C]

Location

Above the commercial boardroom.

Description

Aluminum T-bar supported skylight system with double glazed insulating glazing units. Sealant replaced 2013.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	14
Next Renewal Year:	2022

Encl 15 - T-Bar Skylight [S]

Location

Above the residential amenity room.

Description

Aluminum T-bar supported skylight system with double glazed insulating glazing units.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	16
Next Renewal Year:	2020

Encl 16 - Aluminum Framed Window [S]

Location

Residential amenity roof deck.

Description

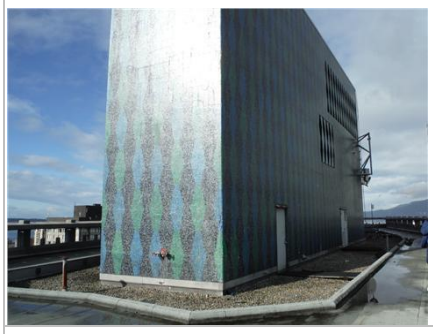
Aluminum framed, thermally broken windows with double glazed insulated glazing units.

Information

Service Life:	40
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2035

Doors

Encl 17 - Metal Clad Swing Door [S]



Location

Service room access doors and emergency egress doors.

Description

Metal clad wood swing door without insulating glazing units.

Information

Service Life:	30
Installed Year:	1957
Chronological Age:	59
Effective Age:	21
Next Renewal Year:	2025

Encl 18 - Aluminum Frame Glazed Swing Door [S]

Location

Amenity room roof deck access doors.

Description

Aluminum frame swing door with insulating glazing units.

Information

Service Life:	30
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2025

Encl 19 - Aluminum Frame Lobby Door [S]

Location

Lobbies.

Description

Outswing aluminum-framed doors with fixed IGU's and low-profile thresholds with electric strike and hardware. Commercial lobby door replaced 2011.

Information

Service Life:	30
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2025

Canopies

Encl 20 - Metal Frame and Glass Canopy [S]

Location

Along the south elevation, above retail units.

Description

Canopy constructed with metal framing and single glazing.

Information

Service Life:	40
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2035

Electra
Asset Inventory

Parking Garage

Encl 21 - Sectional Overhead Door - Metal [S]

Location

South east corner of the building, ground floor loading area.

Description

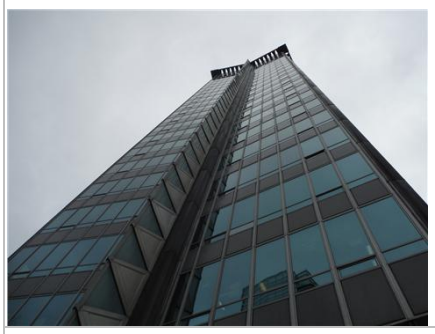
Pre-finished metal sectional overhead garage door with motor drive and hardware.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

General & Inspections

Encl 22 - General & Inspections [S]



Location

Throughout the site.

Description

Miscellaneous interior and exterior components, such as service penetrations and interface details, not related to any particular assembly. Warranty and general reviews.

Information

Service Life:	75
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2070

Encl 23 - Sealant [S]

Location

Interfaces and service penetrations at the exterior walls, roofs and other locations.

Description

Sealant of various types located at joints between building enclosure assemblies, as well as around components and penetrations within building enclosure assemblies.

Information

Service Life:	10
Installed Year:	2016
Chronological Age:	0
Effective Age:	1
Next Renewal Year:	2025

Electra
Asset Inventory
Electrical
Power Supply

Elec 01 - Distribution Transformer - Interior [S]

Location

Rooftop, main level, and basement level electrical rooms.

Description

3 phase, dry-type, with Nema enclosure, coil and vibration isolators that provide power to receptacles and low voltage loads.

Information

Service Life:	40
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2035

Elec 02 - Emergency Generator [S]

Location

Basement level generator room, adjacent to the loading bay,

Description

Cummins generator with steel fuel tank for standby AC power to certain critical fixtures and appliances, such as fire firefighters elevator, fire pump, certain interior light fixtures.

Information

Service Life:	35
Installed Year:	2012
Chronological Age:	4
Effective Age:	4
Next Renewal Year:	2047

Elec 03 - Unit Substation [S]

Location

Basement level electrical room, adjacent to the bike storage rooms.

Description

3 phase, dry type transformer; main breaker, load break switches and metering compartments contained within dual radial unit substation to provide primary electrical service.

Information

Service Life:	35
Installed Year:	1957
Chronological Age:	59
Effective Age:	28
Next Renewal Year:	2023

Distribution

Elec 04 - Electrical Distribution [S]

Location

Throughout the building.

Description

Siemens & Federal Pioneer 3 phase switchgear units; downstream switchboards, panelboards, breakers, switches, disconnects and wiring to mechanical, lighting and power loads throughout the building.

Information

Service Life:	40
Installed Year:	1983
Chronological Age:	33
Effective Age:	33
Next Renewal Year:	2023

Electra
Asset Inventory

Light Fixtures

Elec 05 - Exterior Light Fixtures [S]

Location

Throughout the building exterior.

Description

A variety of fixture types, including wall and column mounted. A variety of lamp types, including fluorescent, compact fluorescent, halogen, incandescent, LED, etc. for exterior direct, indirect and accent lighting applications. A variety of light fixture controls, including switches, motion sensors, timers and photocells.

Information

Service Life:	20
Installed Year:	2013
Chronological Age:	3
Effective Age:	3
Next Renewal Year:	2033

Elec 06 - Interior Light Fixtures [S]

Location

Throughout the building interior.

Description

A variety of fixture types, including fixed surface (pendant, track and sconce) and recessed (pot, troffer and cove). A variety of lamp types, including fluorescent, compact fluorescent, halogen, incandescent, LED, etc. for interior direct, indirect and accent lighting applications. A variety of light fixture controls, including switches, motion sensors, timers, dimmers and photocells.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	19
Next Renewal Year:	2017

Security

Elec 07 - Enterphone System [R]

Location

Site entrance.

Description

Surface mounted, enterphone panels with associated key pads and display panels.

Information

Service Life:	25
Installed Year:	2010
Chronological Age:	6
Effective Age:	6
Next Renewal Year:	2035

Electra
Asset Inventory

Elec 08 - Proximity Access Control [S]

Location

Mounted to walls beside certain common area doors.

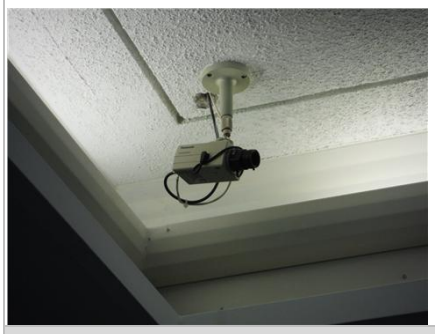
Description

Local proximity access control system components include fob/card devices for building occupants, fob/card readers, RTE sensors/buttons, electric strikes and door controllers. Network level components include door control panel, communication boards, backup batteries, RTE board, conduit, cable and connectors.

Information

Service Life:	12
Installed Year:	2004
Chronological Age:	12
Effective Age:	9
Next Renewal Year:	2019

Elec 09 - Security Surveillance [R]



Location

Various strategic locations throughout the building.

Description

Cameras, multiplexer, monitors and storage media to deter and track activity on and within building premises.

Information

Service Life:	14
Installed Year:	2004
Chronological Age:	12
Effective Age:	12
Next Renewal Year:	2018

Mechanical

Controls and End Devices

Mech 01 - Controls - Direct Digital [S]

Location

Mechanical rooms throughout the building.

Description

DDC panels to control heating, air-conditioning, domestic hot water system and boilers etc.

Information

Service Life:	15
Installed Year:	2007
Chronological Age:	9
Effective Age:	9
Next Renewal Year:	2022

Mech 02 - Controls - HVAC Instrumentation [S]

Location

Individual suites, common areas and service rooms throughout the building.

Description

Thermostats, programmable thermostats, flow gauges, thermometers, metering equipment, gauges, and other field devices to monitor and regulate pressure and temperature in the HVAC and plumbing distribution systems.

Information

Service Life:	20
Installed Year:	2012
Chronological Age:	4
Effective Age:	4
Next Renewal Year:	2032

Plumbing & Drainage

Mech 03 - Drainage - Sanitary [S]

Location

Connected to waste fixtures throughout the building.

Description

Cast iron DWV piping, with mechanical joints, p-traps, and fittings.

Information

Service Life:	50
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2045

Mech 04 - Fixtures - Showers [S]

Location

Fitness room washrooms, lower main floor.

Description

Built-up shower, including faucets and trim.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Mech 05 - Fixtures - Taps & Sinks [S]

Location

Common area washrooms.

Description

Sinks, janitors mop sinks, and other plumbing supply fixtures.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Mech 06 - Fixtures - Toilets & Urinals [R]

Location

Common area washrooms.

Description

Floor or wall mounted toilets and urinals.

Information

Service Life:	25
Installed Year:	2012
Chronological Age:	4
Effective Age:	4
Next Renewal Year:	2037

Mech 07 - Pump - DHW - Circulation and Recirculation [S]

Location

Basement level mechanical room.

Description

Armstrong, 1/2 HP, pipe-mounted bronze body domestic hot water circulation pumps. Circulating hot water from boilers to tanks and recirculating hot water from system.

Information

Service Life:	10
Installed Year:	1995
Chronological Age:	21
Effective Age:	10
Next Renewal Year:	2016

Mech 08 - Pumps - Sanitary Lift and Control Panel [S]

Location

Basement mechanical room.

Description

Duplex, sanitary sump pumps and control panels for sanitary drainage.

Information

Service Life:	15
Installed Year:	2013
Chronological Age:	3
Effective Age:	3
Next Renewal Year:	2028

Mech 09 - Pumps - Storm Lift and Control Panel [S]

Location

Basement mechanical room.

Description

Duplex, storm sump pumps and control panels for storm water runoff and sub-surface drainage. Sump pumps rebuilt every 5 years; last done in 2013.

Information

Service Life:	15
Installed Year:	1957
Chronological Age:	59
Effective Age:	3
Next Renewal Year:	2028

Mech 10 - Tank - Buffer - Domestic Water [C]

Location

Basement mechanical room.

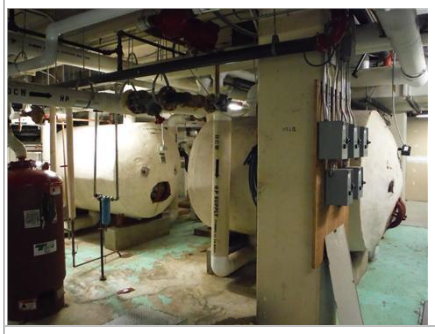
Description

Floor mounted buffer tank for domestic water system.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	20
Next Renewal Year:	2016

Mech 11 - Tank - DHW - Storage [R]



Location

Basement mechanical room.

Description

Cement lined hot water storage tanks connected to domestic steam system.

Information

Service Life:	30
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2025

Mech 12 - Drainage - Storm - Internal [S]

Location

Throughout the building.

Description

Trench drains, catch basins and associated piping systems for rainwater runoff. Roof drains may be included with the roof assets.

Information

Service Life:	40
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2035

Mech 13 - Piping - Domestic Water Distribution [S]

Location

Connected to supply fixtures throughout.

Description

Mixture of K and L copper for vertical/horizontal mains system and distribution piping within the suites.

Information

Service Life:	28
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2023

Mech 14 - Pump - Domestic Water Booster [S]

Location

Basement mechanical room.

Description

Armstrong duplex/triplex system with 25HP lead pump, 15HP lag pumps, packaged (variable speed drive) motor control system, to supply constant boosted pressure to fixtures and equipment on all levels. Note: the service life of this assembly can be extended by the cyclical renewal of components within the assembly, such as pump rebuilds and control panel upgrades. This system was retrofitted in 2014.

Information

Service Life:	14
Installed Year:	2014
Chronological Age:	2
Effective Age:	2
Next Renewal Year:	2028

Mech 15 - Valves - Cross Connection & Backflow Prevention [S]

Location

Basement mechanical room.

Description

Various types and sizes of backflow prevention valves, including vacuum breakers, double check, reduced pressure valves on systems. Backflow prevention valve replaced in 2011.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	20
Next Renewal Year:	2016

Mech 16 - Valves - Plumbing Flow Control and Directional [S]

Location

Mechanical rooms and various locations throughout the building.

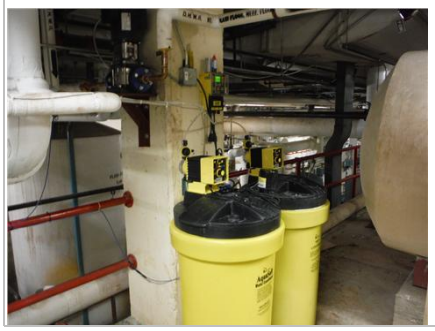
Description

Various types and sizes of valves, including pressure reducing valves, isolation valves, two-way and three way valves, circuit flow control valves and check valves to regulate the flow of water through domestic plumbing systems.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	20
Next Renewal Year:	2016

Mech 17 - Water Treatment Equipment - Water Conditioner [S]



Location

Basement mechanical room.

Description

Hytek treatment tanks, filters, chemical dosers, metering pumps and other associated equipment to provide treatment for potable water system.

Information

Service Life:	8
Installed Year:	2010
Chronological Age:	6
Effective Age:	6
Next Renewal Year:	2018

Mech 18 - Tank - DHW - Heating [C]

Location

Basement mechanical room.

Description

A.O. Smith electric domestic water heater for domestic hot water for plumbing fixtures serving the mechanical section.

Information

Service Life:	10
Installed Year:	2011
Chronological Age:	5
Effective Age:	5
Next Renewal Year:	2021

Heating & Cooling

Mech 19 - Fan Coil Unit [S]

Location

Mechanical closets throughout the building.

Description

Magic Aire floor mounted fan coil units on a ducted system for air conditioning.

Information

Service Life:	15
Installed Year:	1995
Chronological Age:	21
Effective Age:	15
Next Renewal Year:	2016

Mech 20 - Cooling Tower [S]

Location

Level 21.

Description

Evapco evaporative fluid cooling device. 20HP pump. Supplies cooling to residential and commercial areas throughout the building. Evaporative cooler with circulation pump and misting device.

Information

Service Life:	18
Installed Year:	1995
Chronological Age:	21
Effective Age:	18
Next Renewal Year:	2016

Mech 21 - Fireplace - Gas [S]

Location

Lobby and amenity room.

Description

Natural gas fireplaces with fireplace enclosure, flue, gas piping, gas valve, glass panel and other components.

Information

Service Life:	30
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2025

Mech 22 - Chemical Treatment Equipment [S]

Location

Mechanical rooms.

Description

Pot feeders, chemicals (such as biocide, scale, corrosion and oxygen inhibitor, glycol), metering pumps and other associated equipment to provide corrosion protection to boilers, loops and piping, (frost and microbial mitigation in cooling tower).

Information

Service Life:	8
Installed Year:	1995
Chronological Age:	21
Effective Age:	8
Next Renewal Year:	2016

Mech 23 - Chiller [S]

Location

Lower main floor chiller/emergency generator room.

Description

Mcquay 200 ton liquid cooled centrifugal/screw chillers providing chilled water to cooling coils etc in AHU's, CRAC units, etc.

Information

Service Life:	23
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2018

Mech 24 - Heat Exchanger - Shell & Tube - District Steam to Hot Water [S]

Location

Basement mechanical room.

Description

Shell and tube heat exchangers to separate district steam heating system from building main hot water heating loop.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Mech 25 - Meter - Condensate (Steam) [C] [PLACEHOLDER]

Location

Basement mechanical room.

Description

Steam condensate meter with digital electronic totalizer readout to measure consumption of steam from district steam system.

Information

Service Life:	15
Installed Year:	1995
Chronological Age:	21
Effective Age:	15
Next Renewal Year:	2016

Mech 26 - Piping - Hydronic Distribution [C]

Location

Throughout the building.

Description

Hydronic heating and cooling water supply and return system consisting of insulated piping.

Information

Service Life:	30
Installed Year:	1957
Chronological Age:	59
Effective Age:	23
Next Renewal Year:	2023

Mech 27 - Piping - Steam [S]

Location

Throughout the building.

Description

Steam supply and condensate return system consisting of insulated piping.

Information

Service Life:	30
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2025

Mech 28 - Pump - Hydronic Loop - Vertical Inline/Basemount [S]

Location

Basement and rooftop mechanical rooms.

Description

Armstrong, centrifugal basemount pumps for heating water hydronic loop, and basemount pumps for chiller/condenser water hydronic loop. Various pumps replaced as required.

Information

Service Life:	15
Installed Year:	1995
Chronological Age:	21
Effective Age:	15
Next Renewal Year:	2016

Mech 29 - Tank - Expansion - Hydronic - Diaphragm [S]

Location

Rooftop mechanical room.

Description

Floor mounted diaphragm expansion tank for hydronic heating system.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	20
Next Renewal Year:	2016

Mech 30 - Valves - HVAC Flow Control and Directional [S]

Location

Throughout hydronic distribution piping.

Description

Various types and sizes of valves, including pressure reducing valves, isolation valves, two-way and three way valves, circuit flow control valves and check valves to regulate the flow of water through heating systems.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	20
Next Renewal Year:	2016

Mech 31 - Condensate Accumulator/Cooler [R] [PLACEHOLDER]

Location

Basement mechanical room.

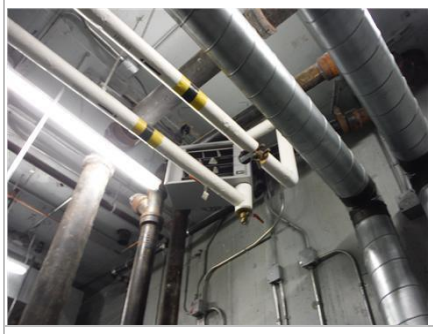
Description

Steam condensate accumulator with cooling cycle for dump to drain.

Information

Service Life:	15
Installed Year:	1995
Chronological Age:	21
Effective Age:	15
Next Renewal Year:	2016

Mech 32 - Unit Heater - Hydronic [S]



Location

Service rooms throughout the building.

Description

Hydronic hot water unit heaters with fans and louver.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	20
Next Renewal Year:	2016

Mech 33 - Heat Pump Units [R]

Location

Residential suites.

Description

Water-loop to air heat pumps, comprising waterloop condensor/evaporator, direct expansion air-side coil, solenoid valves and blower section. Digital thermostats controlling heat pumps replaced in 2012. Approximately 140 heat pumps have been replaced from 2005 to 2015.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	16
Next Renewal Year:	2020

Ventilation and Air-conditioning

Mech 34 - Exhaust Fan - Large Centrifugal [S]

Location

Fan rooms throughout the building.

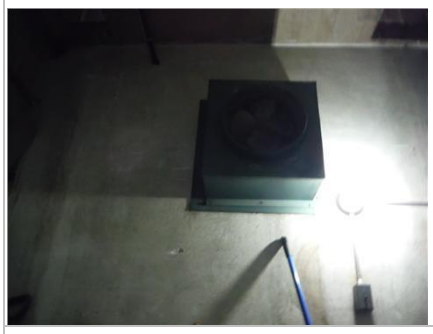
Description

Belt driven centrifugal fan utility set on (spring isolated) base frame.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	20
Next Renewal Year:	2016

Mech 35 - Exhaust Fan - Small Service - Cabinet [S]



Location

Various service rooms and amenity spaces throughout the building.

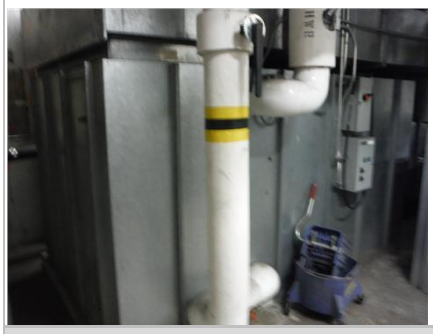
Description

Direct drive fans, ceiling and cabinet fans, and centrifugal inline blower fans.

Information

Service Life:	12
Installed Year:	1995
Chronological Age:	21
Effective Age:	12
Next Renewal Year:	2016

Mech 36 - Make Up Air Unit - Indoor - Hydronic [S]



Location

Rooftop and basement fan rooms.

Description

ENG Air, belt-driven, centrifugal fan with hot water heating coil, to supply tempered make-up air to the interior spaces.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Elevator

Traction

Elev 01 - Traction Elevators, Overhead Gearless (989 Nelson Street) [R]

Location

Elevator machine room at roof level.

Description

Gearless overhead traction elevators with Dover T2000CC Relay controls, Westinghouse DC motor generator systems, Westinghouse SK gearless machines, 2500 lbs, 700 fpm rated speed. Controls were retrofitted in 1989.

Information

Service Life:	30
Installed Year:	1989
Chronological Age:	27
Effective Age:	27
Next Renewal Year:	2019

Hydraulic

Elev 02 - Hydraulic Elevator, Double Bottom (970 Burrard) [C]

Location

Elevator machine room at basement.

Description

Dover Elevator direct acting hydraulic elevator with a buried double bottom cylinder, Dover Relay control systems, submersed(15422)/external(15423) pump units, Dover I-2/I-3 valves, 3500 lbs capacity, 150 fpm rated speed.

Information

Service Life:	25
Installed Year:	1987
Chronological Age:	29
Effective Age:	21
Next Renewal Year:	2020

Car Interiors

Elev 03 - Elevator Cabs & Hoistway (989 Nelson Street) [R]

Location

Elevator cab and travelling hoistway.

Description

Single speed centre opening doors, plastic car and hall pushbuttons, two (2) car operating panel (stainless steel), infrared door protection, Thyssen HDLM door operators, stainless steel doors and front return, mirror walls with stainless steel reveals and glass panel on rear wall, stainless steel ceiling, linoleum flooring, tubular stainless steel handrails on all non-access walls, firefighter's emergency operation, standby power provisions, hands-free voice communication device, no seismic provisions.

Information

Service Life:	30
Installed Year:	1987
Chronological Age:	29
Effective Age:	27
Next Renewal Year:	2019

Elev 04 - Elevator Cabs & Hoistway (970 Burrard) [C]

Location

Elevator cab and travelling hoistway.

Description

Front and rear single speed centre opening doors, plastic car and hall pushbuttons, one (1) car operating panel (stainless steel), infrared door protection, Dover Belt door operators, stainless steel door, door header, front return, mirror walls with stainless steel reveals, stainless steel ceiling, carpet flooring, tubular stainless steel handrails on all non-access walls, firefighter's emergency operation, standby power, hand-held voice communication device (in cabinet), no seismic provision.

Information

Service Life:	25
Installed Year:	1987
Chronological Age:	29
Effective Age:	21
Next Renewal Year:	2020

Electra
Asset Inventory

Fire Safety

Controls

Fire 01 - Fire Alarm Panel - Addressable [S]

Location

Residential and commercial lobbies.

Description

Microprocessor, addressable, supervised unit with graphic annunciator and LCD display

Information

Service Life:	20
Installed Year:	2012
Chronological Age:	4
Effective Age:	4
Next Renewal Year:	2032

Detection

Fire 02 - Fire Detection & Alarm [S]

Location

Throughout the building.

Description

Smoke detectors, heat detectors, flow switches, tamper switches, horns, pull stations and other fixed apparatus field devices to detect fire and smoke conditions and initiate timely response.

Information

Service Life:	20
Installed Year:	2012
Chronological Age:	4
Effective Age:	4
Next Renewal Year:	2032

Suppression

Fire 03 - Dry Sprinkler Compressor [S]

Location

Sprinkler rooms throughout the building.

Description

Swan compressor with 1/2HP motor to maintain the pressure of air in the dry fire sprinkler lines.

Information

Service Life:	14
Installed Year:	1995
Chronological Age:	21
Effective Age:	14
Next Renewal Year:	2016

Fire 04 - Portable Fire Extinguisher [S]

Location

Throughout the building.

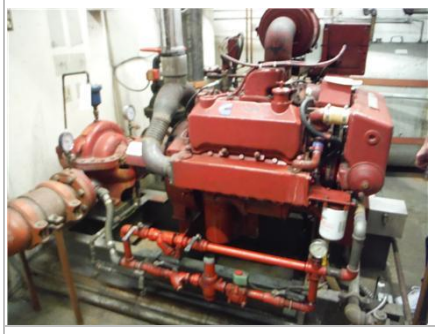
Description

Wall mounted, manually operated, 5lbs and 10lbs ABC type, pressurized vessels for controlled discharge of chemicals to extinguish small fires.

Information

Service Life:	24
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2019

Fire 05 - Fire & Jockey Pump [S]



Location

Sprinkler room adjacent to the bike storage room.

Description

Motor control centre connected to 137 HP fire pump and jockey pump, which work in tandem to supply water flow and pressure to the sprinkler system and standpipe system.

Information

Service Life:	30
Installed Year:	1986
Chronological Age:	30
Effective Age:	27
Next Renewal Year:	2019

Fire 06 - Sprinkler & Standpipe - Wet [S]

Location

Distributed throughout the common areas, hallways, and suites.

Description

Standard upright, pendant and sidewall sprinkler heads, flow switches and indicating devices, gauges, steel (and PVC) distribution lines.

Information

Service Life:	40
Installed Year:	1986
Chronological Age:	30
Effective Age:	30
Next Renewal Year:	2026

Fire 07 - Sprinkler Valve Assembly - Dry [S]

Location

Rooftop mechanical room.

Description

Dry sprinkler valves, trim and gauges, steel piping.

Information

Service Life:	40
Installed Year:	1986
Chronological Age:	30
Effective Age:	30
Next Renewal Year:	2026

Electra
Asset Inventory

Fire 08 - Sprinkler System - Dry [S]

Location

Unheated penthouse levels.

Description

Exposed dry sprinklers, upright and sidewall sprinkler heads, steel piping.

Information

Service Life:	40
Installed Year:	1986
Chronological Age:	30
Effective Age:	30
Next Renewal Year:	2026

Egress

Fire 09 - Emergency Egress Equipment [S]

Location

Mounted to walls and ceilings near doors and in various strategic locations throughout the building.

Description

Exit lights and emergency lighting equipment to facilitate evacuation from the interior of the building in the event of an emergency.

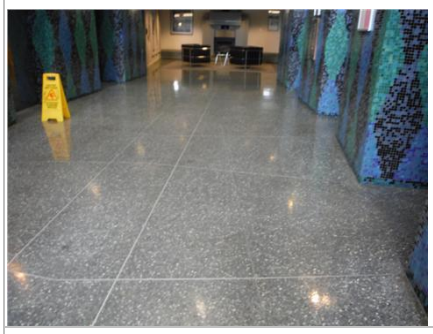
Information

Service Life:	20
Installed Year:	2012
Chronological Age:	4
Effective Age:	4
Next Renewal Year:	2032

Interior Finishes

Floors

Finish 01 - Terrazzo Floor Tile [R]



Location

Lobby.

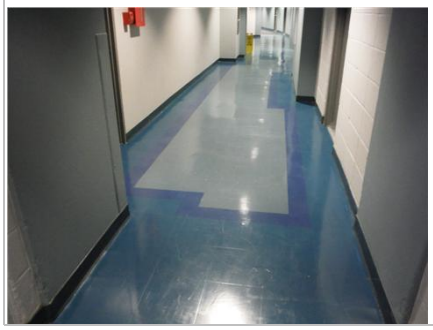
Description

Polished terrazzo floor tile on thin set mortar with grout.

Information

Service Life:	40
Installed Year:	1957
Chronological Age:	59
Effective Age:	39
Next Renewal Year:	2017

Finish 02 - Resilient Sheet Flooring [S]



Location

Basement, lower main floor and various other locations such as washrooms.

Description

Vinyl tile or vinyl sheet adhered to the substrate. New flooring installed at lower main floor elevator vestibule 2014.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	19
Next Renewal Year:	2017

Finish 03 - Carpet Flooring [R]

Location

Residential hallways levels 3-21 and mezzanine level.

Description

Synthetic, low level loop, textile sheet floor covering glued over floor substrate.

Information

Service Life:	15
Installed Year:	2015
Chronological Age:	1
Effective Age:	1
Next Renewal Year:	2030

Finish 04 - Stone Floor Tile [R]

Location

Residential amenity room, main floor.

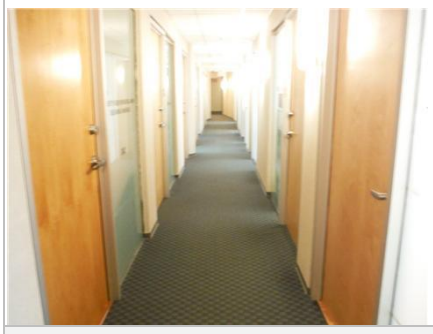
Description

Cut stone floor tile and brick on thin set mortar with grout.

Information

Service Life:	50
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2045

Finish 05 - Carpet Flooring [C]



Location

Commercial hallways.

Description

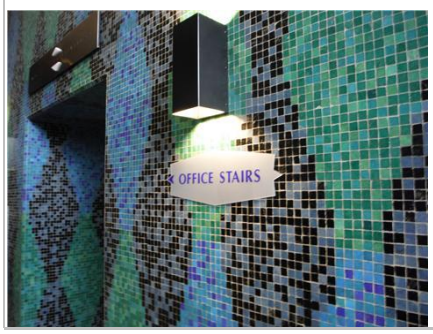
Synthetic, low level loop, textile sheet floor covering glued over floor substrate. Localized replacement adjacent to the elevator.

Information

Service Life:	15
Installed Year:	1995
Chronological Age:	21
Effective Age:	14
Next Renewal Year:	2017

Walls

Finish 06 - Mosaic Wall Tile [R]



Location

Lobby and various sections of the amenity room.

Description

Mosaic and traditional ceramic tile on mortar bed and substrate with grout and sealant at interfaces.

Information

Service Life:	40
Installed Year:	1957
Chronological Age:	59
Effective Age:	39
Next Renewal Year:	2017

Finish 07 - Paint [S]

Location

Amenity room, lobby, and various other locations.

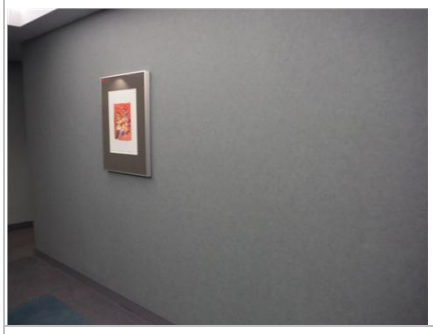
Description

Primers and multiple pigmented coating finishes applied to interior gypsum wallboard.

Information

Service Life:	15
Installed Year:	2014
Chronological Age:	2
Effective Age:	2
Next Renewal Year:	2029

Finish 08 - Wallpaper Covering [R]



Location

Residential hallways levels 3-21.

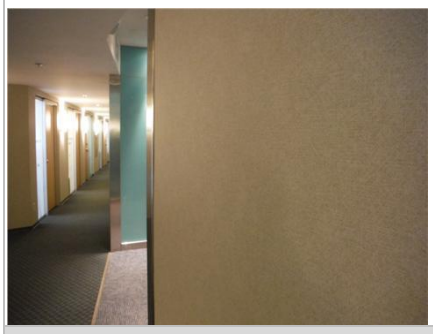
Description

Decorative wallpaper sheet covering adhered to substrate sheathing.

Information

Service Life:	15
Installed Year:	1995
Chronological Age:	21
Effective Age:	14
Next Renewal Year:	2017

Finish 09 - Wallpaper Covering [C]



Location

Commercial office levels 1-2.

Description

Decorative wallpaper sheet covering adhered to substrate sheathing.

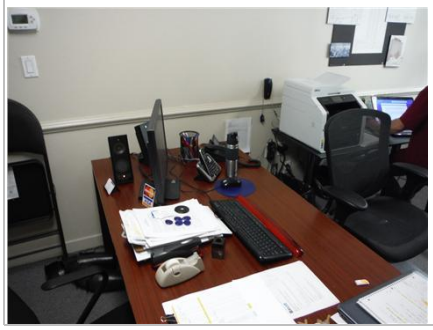
Information

Service Life:	15
Installed Year:	1998
Chronological Age:	18
Effective Age:	14
Next Renewal Year:	2017

Amenities

Equipment

Amen 01 - Computer Equipments [R]



Location

Manager's office, mezzanine level.

Description

Computer, monitor, printer, keyboard and associated electronic devices required for general operations and management of the facility.

Information

Service Life:	10
Installed Year:	2010
Chronological Age:	6
Effective Age:	6
Next Renewal Year:	2020

Electra
Asset Inventory

Amen 02 - Domestic Appliances [R]

Location

Amenity room kitchen.

Description

Refrigerator and range of miscellaneous brands.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	17
Next Renewal Year:	2019

Amen 03 - Fitness Equipments [R]

Location

Fitness room, lower main floor.

Description

Various fitness machines and equipment; treadmills, ellipticals, free weights, etc.

Information

Service Life:	10
Installed Year:	2014
Chronological Age:	2
Effective Age:	2
Next Renewal Year:	2024

Amen 04 - Outdoor Barbecue [R]

Location

Amenity room roof deck.

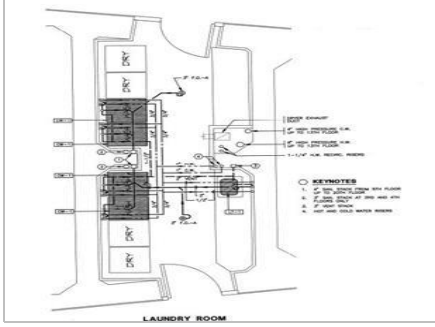
Description

Propane or natural gas BBQ grill.

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	17
Next Renewal Year:	2019

Amen 05 - Laundry Facility [R]



Location

Residential floors 4-20.

Description

Washers and dryers.

Information

Service Life:	10
Installed Year:	1995
Chronological Age:	21
Effective Age:	10
Next Renewal Year:	2016

Specialties

Amen 06 - Metal Screen Storage Locker [R]

Location
Residential locker rooms, levels 3-21.

Description
Painted metal screen storage lockers with steel framing and hardware.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Amen 07 - Washroom Partition

Location
Amenity washrooms.

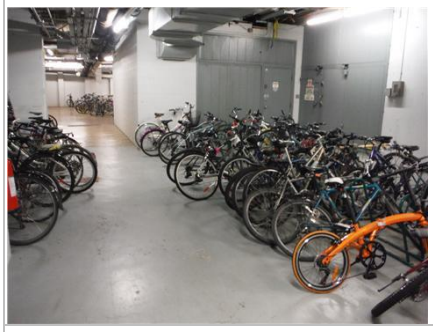
Description
Privacy panels and miscellaneous hardware fittings such as pilaster, panel, door, anchors, hinges, latches and brackets.

Information

Service Life:	30
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2025

Furnishings

Amen 08 - Bike Room and Racks [R]



Location
Bicycle storage room, lower main floor.

Description
Floor or wall mounted, steel framed bicycle racks.

Information

Service Life:	30
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2025

Amen 09 - Central Mailboxes [R]

Location
Residential lobby.

Description
Flush or surface mounted, front or rear loading, brushed aluminum finish, extruded aluminum trim.

Information

Service Life:	30
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2025

Electra
Asset Inventory

Amen 10 - Furniture [R]

Location

Amenity room and lobby.

Description

Couches, desks, chairs, tables, etc.

Information

Service Life:	20
Installed Year:	2012
Chronological Age:	4
Effective Age:	4
Next Renewal Year:	2032

Amen 11 - Pool Table [R]

Location

Amenity room.

Description

Pool table with felt on high density substrate, bumpers, pockets and frame. Protective cover, pool cues and other miscellaneous accessories.

Information

Service Life:	20
Installed Year:	2014
Chronological Age:	2
Effective Age:	2
Next Renewal Year:	2034

Amen 12 - Public Signage [S]

Location

Mounted to doors, walls & equipment in various locations throughout the building.

Description

Variety of permanently displayed information placards in the common areas of the building.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Suite

Amen 13 - Audio Visual Room & Equipment [R]

Location

Amenity theatre room.

Description

Television, seating, speakers and other miscellaneous equipment.

Information

Service Life:	10
Installed Year:	2011
Chronological Age:	5
Effective Age:	5
Next Renewal Year:	2021

Amen 14 - Guest Suites [R]

Location

Mezzanine level.

Description

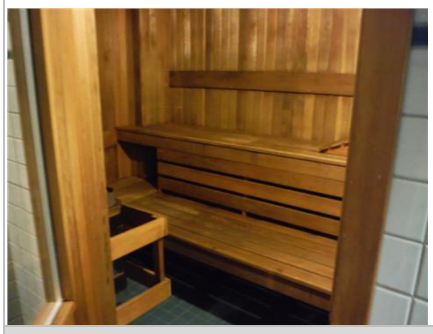
A total of 4 Strata owned guest suites with kitchenette including a microwave and refrigerator, bathroom, beds, miscellaneous furniture and accessories. Repainted 2012.

Information

Service Life:	25
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2020

Pool, Spa & Sauna

Amen 15 - Dry Sauna [R]



Location

Fitness room washrooms, lower main floor.

Description

Wood paneling, wood benches, wood door, electric heater and timer control.

Information

Service Life:	30
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2025

Sitework

Hard Landscaping

Site 01 - Metal Trellis [R]

Location

Amenity deck.

Description

Painted metal trellis.

Information

Service Life:	40
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2035

Site 02 - Concrete Paving [S]

Location

Driveway and walkways at ground level.

Description

Concrete pavement, cast with control and construction joints, onto compacted gravel base.

Information

Service Life:	40
Installed Year:	1957
Chronological Age:	59
Effective Age:	37
Next Renewal Year:	2019

Site 03 - Terrazzo Paving [S]

Location

Site entrance, main floor level.

Description

Terrazzo flooring, combination of chip seal joint filler and jointing sand, bedding sand, and onto compacted gravel base.

Information

Service Life:	40
Installed Year:	1957
Chronological Age:	59
Effective Age:	37
Next Renewal Year:	2019

Soft Landscaping

Site 04 - Soft Landscaping [S]

Location

Planters at site entrance.

Description

Planters, ground cover, shrubs, perennials and small trees(up to 30').

Information

Service Life:	20
Installed Year:	1995
Chronological Age:	21
Effective Age:	17
Next Renewal Year:	2019

Site Services

Site 05 - Underground Water Services with PVC/Copper and Ductile Piping [S]

Location

Throughout the site.

Description

Fire/domestic water supplies, from the property line to the buildings and hydrant

Information

Service Life:	50
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2045

Site 06 - Electrical Site Services [S]

Location

Throughout the site.

Description

Underground secondary distribution conduits and services from individual pad mounted transformers to building electrical rooms.

Information

Service Life:	50
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2045

Site 07 - Underground Drainage Services - Storm [S]

Location

Throughout the site.

Description

Storm sewer from buildings and catch basins to property line.

Information

Service Life:	50
Installed Year:	1995
Chronological Age:	21
Effective Age:	21
Next Renewal Year:	2045

Site 08 - Underground Sewer Services - Sewer [S]

Location

Throughout the site.

Description

Sanitary sewer system from the buildings to the property line, including all appurtenances. Commercial section sanitary services original 1957, Residential section replaced 1995.

Information

Service Life:	50
Installed Year:	1957
Chronological Age:	59
Effective Age:	47
Next Renewal Year:	2019

Appendix C

Asset Service Life Summary

Electra

Asset Service Life Summary

Asset Ref	Asset Name	Chronological Age	Estimated Remaining SL
Encl 01	Protected Membrane Roof [S]	21	4
Encl 02	Protected Membrane Roof [C]	21	4
Encl 03	Exposed SBS Membrane Roof [S]	21	4
Encl 04	Exposed Urethane Membrane Deck [S]	21	0
Encl 05	Protected Membrane Deck [R]	21	1
Encl 06	Stucco Clad Soffit [S]	21	19
Encl 07	Anchor Fall Protection Equipment [S]	5	45
Encl 08	Prefinished Metal Cladding Wall [S]	31	19
Encl 09	Mosaic Tile Wall [S]	31	9
Encl 10	Coated Architectural Concrete Wall [S]	59	16
Encl 11	Stucco Clad Wall - Undrained [S]	21	1
Encl 12	Aluminum Storefront [S]	21	19
Encl 13	Curtain Wall - Stick Capped [S]	31	19
Encl 14	T-Bar Skylight [C]	21	6
Encl 15	T-Bar Skylight [S]	21	4
Encl 16	Aluminum Framed Window [S]	21	19
Encl 17	Metal Clad Swing Door [S]	59	9
Encl 18	Aluminum Frame Glazed Swing Door [S]	21	9
Encl 19	Aluminum Frame Lobby Door [S]	21	9
Encl 20	Metal Frame and Glass Canopy [S]	21	19
Encl 21	Sectional Overhead Door - Metal [S]	21	4
Encl 22	General & Inspections [S]	21	54
Encl 23	Sealant [S]	0	9
Elec 01	Distribution Transformer - Interior [S]	21	19
Elec 02	Emergency Generator [S]	4	31
Elec 03	Unit Substation [S]	59	7
Elec 04	Electrical Distribution [S]	33	7
Elec 05	Exterior Light Fixtures [S]	3	17
Elec 06	Interior Light Fixtures [S]	21	1
Elec 07	Enterphone System [R]	6	19
Elec 08	Proximity Access Control [S]	12	3
Elec 09	Security Surveillance [R]	12	2
Mech 01	Controls - Direct Digital [S]	9	6
Mech 02	Controls - HVAC Instrumentation [S]	4	16
Mech 03	Drainage - Sanitary [S]	21	29
Mech 04	Fixtures - Showers [S]	21	4
Mech 05	Fixtures - Taps & Sinks [S]	21	4
Mech 06	Fixtures - Toilets & Urinals [R]	4	21
Mech 07	Pump - DHW - Circulation and Recirculation [S]	21	0

Mech 08	Pumps - Sanitary Lift and Control Panel [S]	3	12
Mech 09	Pumps - Storm Lift and Control Panel [S]	59	12
Mech 10	Tank - Buffer - Domestic Water [C]	21	0
Mech 11	Tank - DHW - Storage [R]	21	9
Mech 12	Drainage - Storm - Internal [S]	21	19
Mech 13	Piping - Domestic Water Distribution [S]	21	7
Mech 14	Pump - Domestic Water Booster [S]	2	12
Mech 15	Valves - Cross Connection & Backflow Prevention [S]	21	0
Mech 16	Valves - Plumbing Flow Control and Directional [S]	21	0
Mech 17	Water Treatment Equipment - Water Conditioner [S]	6	2
Mech 18	Tank - DHW - Heating [C]	5	5
Mech 19	Fan Coil Unit [S]	21	0
Mech 20	Cooling Tower [S]	21	0
Mech 21	Fireplace - Gas [S]	21	9
Mech 22	Chemical Treatment Equipment [S]	21	0
Mech 23	Chiller [S]	21	2
Mech 24	Heat Exchanger - Shell & Tube - District Steam to Hot Water [S]	21	4
Mech 25	Meter - Condensate (Steam) [C] [PLACEHOLDER]	21	0
Mech 26	Piping - Hydronic Distribution [C]	59	7
Mech 27	Piping - Steam [S]	21	9
Mech 28	Pump - Hydronic Loop - Vertical Inline/Basemount [S]	21	0
Mech 29	Tank - Expansion - Hydronic - Diaphragm [S]	21	0
Mech 30	Valves - HVAC Flow Control and Directional [S]	21	0
Mech 31	Condensate Accumulator/Cooler [R] [PLACEHOLDER]	21	0
Mech 32	Unit Heater - Hydronic [S]	21	0
Mech 33	Heat Pump Units [R]	21	4
Mech 34	Exhaust Fan - Large Centrifugal [S]	21	0
Mech 35	Exhaust Fan - Small Service - Cabinet [S]	21	0
Mech 36	Make Up Air Unit - Indoor - Hydronic [S]	21	4
Elev 01	Traction Elevators, Overhead Gearless (989 Nelson Street) [R]	27	3
Elev 02	Hydraulic Elevator, Double Bottom (970 Burrard) [C]	29	4
Elev 03	Elevator Cabs & Hoistway (989 Nelson Street) [R]	29	3
Elev 04	Elevator Cabs & Hoistway (970 Burrard) [C]	29	4
Fire 01	Fire Alarm Panel - Addressable [S]	4	16
Fire 02	Fire Detection & Alarm [S]	4	16
Fire 03	Dry Sprinkler Compressor [S]	21	0
Fire 04	Portable Fire Extinguisher [S]	21	3
Fire 05	Fire & Jockey Pump [S]	30	3
Fire 06	Sprinkler & Standpipe - Wet [S]	30	10
Fire 07	Sprinkler Valve Assembly - Dry [S]	30	10
Fire 08	Sprinkler System - Dry [S]	30	10

Fire 09	Emergency Egress Equipment [S]	4	16
Finish 01	Terrazzo Floor Tile [R]	59	1
Finish 02	Resilient Sheet Flooring [S]	21	1
Finish 03	Carpet Flooring [R]	1	14
Finish 04	Stone Floor Tile [R]	21	29
Finish 05	Carpet Flooring [C]	21	1
Finish 06	Mosaic Wall Tile [R]	59	1
Finish 07	Paint [S]	2	13
Finish 08	Wallpaper Covering [R]	21	1
Finish 09	Wallpaper Covering [C]	18	1
Amen 01	Computer Equipments [R]	6	4
Amen 02	Domestic Appliances [R]	21	3
Amen 03	Fitness Equipments [R]	2	8
Amen 04	Outdoor Barbecue [R]	21	3
Amen 05	Laundry Facility [R]	21	0
Amen 06	Metal Screen Storage Locker [R]	21	4
Amen 07	Washroom Partition	21	9
Amen 08	Bike Room and Racks [R]	21	9
Amen 09	Central Mailboxes [R]	21	9
Amen 10	Furniture [R]	4	16
Amen 11	Pool Table [R]	2	18
Amen 12	Public Signage [S]	21	4
Amen 13	Audio Visual Room & Equipment [R]	5	5
Amen 14	Guest Suites [R]	21	4
Amen 15	Dry Sauna [R]	21	9
Site 01	Metal Trellis [R]	21	19
Site 02	Concrete Paving [S]	59	3
Site 03	Terrazzo Paving [S]	59	3
Site 04	Soft Landscaping [S]	21	3
Site 05	Underground Water Services with PVC/Copper and Ductile Piping [S]	21	29
Site 06	Electrical Site Services [S]	21	29
Site 07	Underground Drainage Services - Storm [S]	21	29
Site 08	Underground Sewer Services - Sewer [S]	59	3

Appendix D

Funding Scenario Cash Flow Tables

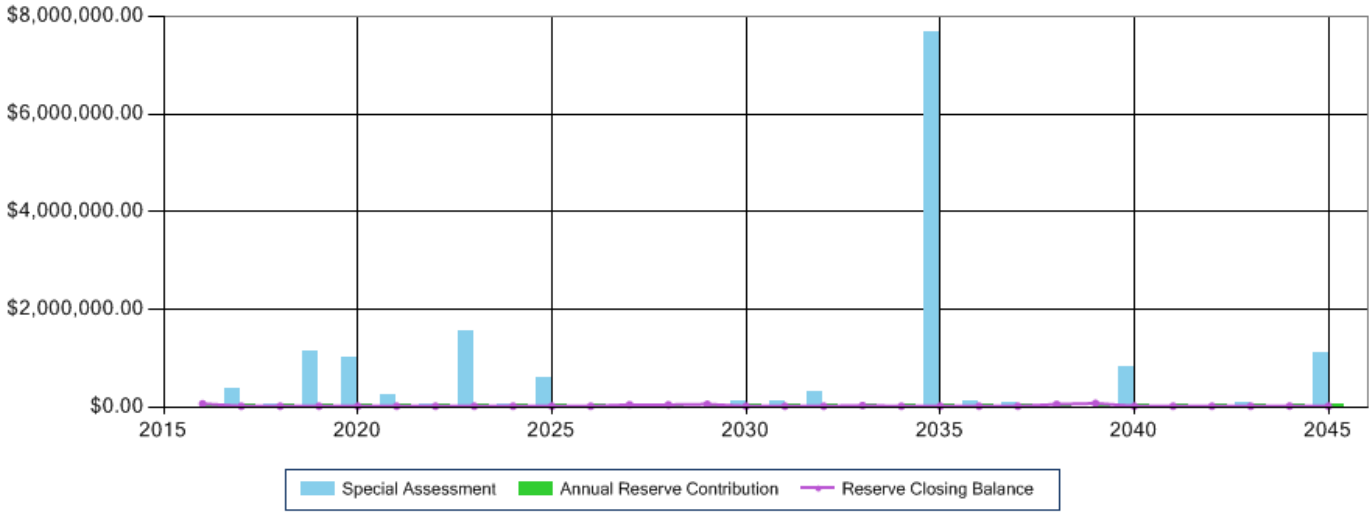
RDH
Making Buildings Better

Building - Funding Model
Electra

Name	R: Fixed Annual Funding of $ 50,000 (Status Quo)
Type	Basic
Regarding	Electra
Start Year	2016
Interest/Investment Rate	2.0%
Estimated Contingency Allowance	$2,000
Tax Rate	0.0%
Planning Horizon	30
Number Of Units	448

Init Catchup Cost	$0
Operating Budget	$1,711,514
Starting Reserve Balance	$292,894
Reserve Contribution Threshold	$500,000
Contribution Below Threshold	$50,000
Contribution Above Threshold	$50,000
Reserve Contribution Increase	0.00 %
Monthly Avg. Unit Contribution	$9

Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2016	$292,894	$50,000	$0	$5,858	$272,240	$2,000	$0	$74,512	1.26 %
2017	$74,512	$50,000	$386,558	$1,490	$485,560	$2,000	$0	$25,000	0.41 %
2018	$25,000	$50,000	$49,320	$500	$97,820	$2,000	$0	$25,000	0.38 %
2019	$25,000	$50,000	$1,147,000	$500	$1,195,500	$2,000	$0	$25,000	0.42 %
2020	$25,000	$50,000	$1,011,860	$500	$1,060,360	$2,000	$0	$25,000	0.46 %
2021	$25,000	$50,000	$246,660	$500	$295,160	$2,000	$0	$25,000	0.44 %
2022	$25,000	$50,000	$49,984	$500	$98,484	$2,000	$0	$25,000	0.41 %
2023	$25,000	$50,000	$1,572,220	$500	$1,620,720	$2,000	$0	$25,000	0.49 %
2024	$25,000	$50,000	$47,840	$500	$96,340	$2,000	$0	$25,000	0.46 %
2025	$25,000	$50,000	$618,740	$500	$667,240	$2,000	$0	$25,000	0.48 %
2026	$25,000	$50,000	$43,554	$500	$92,054	$2,000	$0	$25,000	0.44 %
2027	$25,000	$50,000	$0	$500	$18,042	$2,000	$0	$55,458	0.91 %
2028	$55,458	$50,000	$0	$1,109	$51,760	$2,000	$0	$52,807	0.81 %
2029	$52,807	$50,000	$0	$1,056	$36,240	$2,000	$0	$65,623	0.93 %
2030	$65,623	$50,000	$114,184	$1,312	$204,120	$2,000	$0	$25,000	0.34 %
2031	$25,000	$50,000	$141,790	$500	$190,290	$2,000	$0	$25,000	0.32 %
2032	$25,000	$50,000	$321,226	$500	$369,726	$2,000	$0	$25,000	0.31 %
2033	$25,000	$50,000	$0	$500	$34,080	$2,000	$0	$39,420	0.46 %
2034	$39,420	$50,000	$19,772	$788	$82,980	$2,000	$0	$25,000	0.28 %
2035	$25,000	$50,000	$7,680,440	$500	$7,728,940	$2,000	$0	$25,000	1.81 %
2036	$25,000	$50,000	$110,940	$500	$159,440	$2,000	$0	$25,000	1.79 %
2037	$25,000	$50,000	$96,640	$500	$145,140	$2,000	$0	$25,000	1.76 %
2038	$25,000	$50,000	$0	$500	$10,440	$2,000	$0	$63,060	4.02 %
2039	$63,060	$50,000	$0	$1,261	$28,660	$2,000	$0	$83,661	4.90 %
2040	$83,661	$50,000	$833,668	$1,673	$942,002	$2,000	$0	$25,000	2.70 %
2041	$25,000	$50,000	$12,880	$500	$61,380	$2,000	$0	$25,000	2.56 %
2042	$25,000	$50,000	$880	$500	$49,380	$2,000	$0	$25,000	2.40 %
2043	$25,000	$50,000	$104,020	$500	$152,520	$2,000	$0	$25,000	2.50 %
2044	$25,000	$50,000	$0	$500	$45,920	$2,000	$0	$27,580	2.61 %
2045	$27,580	$50,000	$1,109,738	$552	$1,160,870	$2,000	$0	$25,000	100.00 %
		$1,500,000	$15,719,914		$17,453,408				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2015
2020
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2030
2035
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2045
Special Assessment
Annual Reserve Contribution
Reserve Closing Balance

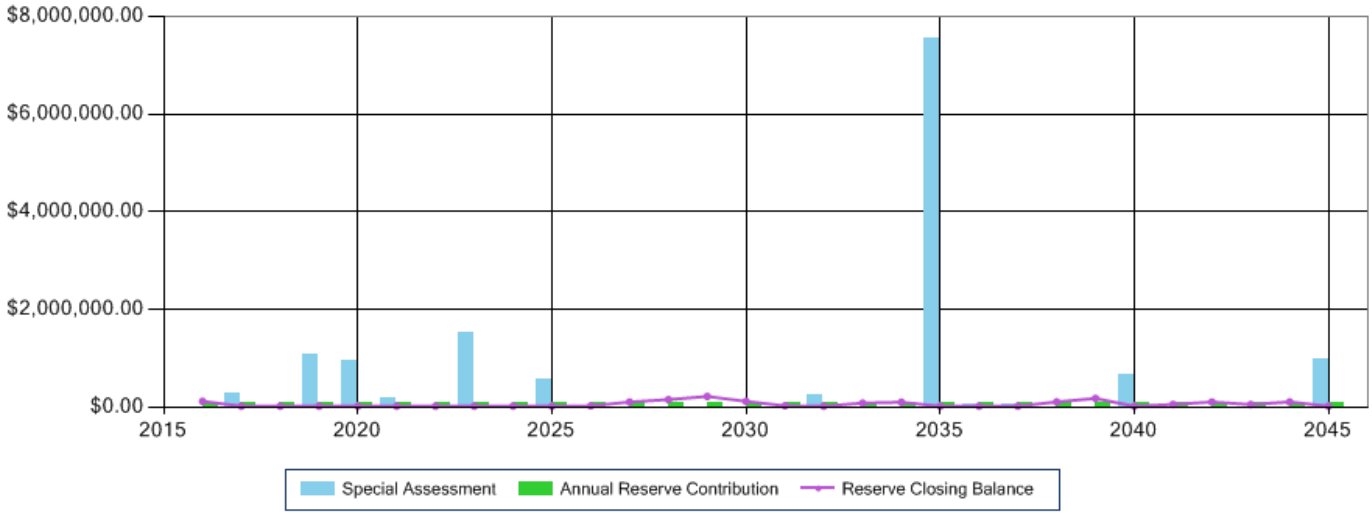
RDH
Making Buildings Better

Building - Funding Model
Electra

Name	R: Fixed Annual Funding of $100,000 (Alternative #1)
Type	Basic
Regarding	Electra
Start Year	2016
Interest/Investment Rate	2.0%
Estimated Contingency Allowance	$2,000
Tax Rate	0.0%
Planning Horizon	30
Number Of Units	448

Init Catchup Cost	$0
Operating Budget	$1,711,514
Starting Reserve Balance	$292,894
Reserve Contribution Threshold	$500,000
Contribution Below Threshold	$100,000
Contribution Above Threshold	$100,000
Reserve Contribution Increase	0.00 %
Monthly Avg. Unit Contribution	$19

Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2016	$292,894	$100,000	$0	$5,858	$272,240	$2,000	$0	$124,512	2.11 %
2017	$124,512	$100,000	$285,558	$2,490	$485,560	$2,000	$0	$25,000	0.41 %
2018	$25,000	$100,000	$0	$500	$97,820	$2,000	$0	$25,680	0.39 %
2019	$25,680	$100,000	$1,096,306	$514	$1,195,500	$2,000	$0	$25,000	0.42 %
2020	$25,000	$100,000	$961,860	$500	$1,060,360	$2,000	$0	$25,000	0.46 %
2021	$25,000	$100,000	$196,660	$500	$295,160	$2,000	$0	$25,000	0.44 %
2022	$25,000	$100,000	$0	$500	$98,484	$2,000	$0	$25,016	0.41 %
2023	$25,016	$100,000	$1,522,204	$500	$1,620,720	$2,000	$0	$25,000	0.49 %
2024	$25,000	$100,000	$0	$500	$96,340	$2,000	$0	$27,160	0.50 %
2025	$27,160	$100,000	$566,537	$543	$667,240	$2,000	$0	$25,000	0.48 %
2026	$25,000	$100,000	$0	$500	$92,054	$2,000	$0	$31,446	0.56 %
2027	$31,446	$100,000	$0	$629	$18,042	$2,000	$0	$112,033	1.84 %
2028	$112,033	$100,000	$0	$2,241	$51,760	$2,000	$0	$160,514	2.46 %
2029	$160,514	$100,000	$0	$3,210	$36,240	$2,000	$0	$225,484	3.22 %
2030	$225,484	$100,000	$0	$4,510	$204,120	$2,000	$0	$123,874	1.69 %
2031	$123,874	$100,000	$0	$2,477	$190,290	$2,000	$0	$34,061	0.44 %
2032	$34,061	$100,000	$261,984	$681	$369,726	$2,000	$0	$25,000	0.31 %
2033	$25,000	$100,000	$0	$500	$34,080	$2,000	$0	$89,420	1.06 %
2034	$89,420	$100,000	$0	$1,788	$82,980	$2,000	$0	$106,228	1.19 %
2035	$106,228	$100,000	$7,547,587	$2,125	$7,728,940	$2,000	$0	$25,000	1.81 %
2036	$25,000	$100,000	$60,940	$500	$159,440	$2,000	$0	$25,000	1.79 %
2037	$25,000	$100,000	$46,640	$500	$145,140	$2,000	$0	$25,000	1.76 %
2038	$25,000	$100,000	$0	$500	$10,440	$2,000	$0	$113,060	7.21 %
2039	$113,060	$100,000	$0	$2,261	$28,660	$2,000	$0	$184,661	10.82 %
2040	$184,661	$100,000	$680,648	$3,693	$942,002	$2,000	$0	$25,000	2.70 %
2041	$25,000	$100,000	$0	$500	$61,380	$2,000	$0	$62,120	6.37 %
2042	$62,120	$100,000	$0	$1,242	$49,380	$2,000	$0	$111,982	10.78 %
2043	$111,982	$100,000	$0	$2,240	$152,520	$2,000	$0	$59,702	5.98 %
2044	$59,702	$100,000	$0	$1,194	$45,920	$2,000	$0	$112,976	10.72 %
2045	$112,976	$100,000	$972,634	$2,260	$1,160,870	$2,000	$0	$25,000	100.00 %
		$3,000,000	$14,199,557		$17,453,408				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$0.00
2015
2020
2025
2030
2035
2040
2045
Special Assessment
Annual Reserve Contribution
Reserve Closing Balance

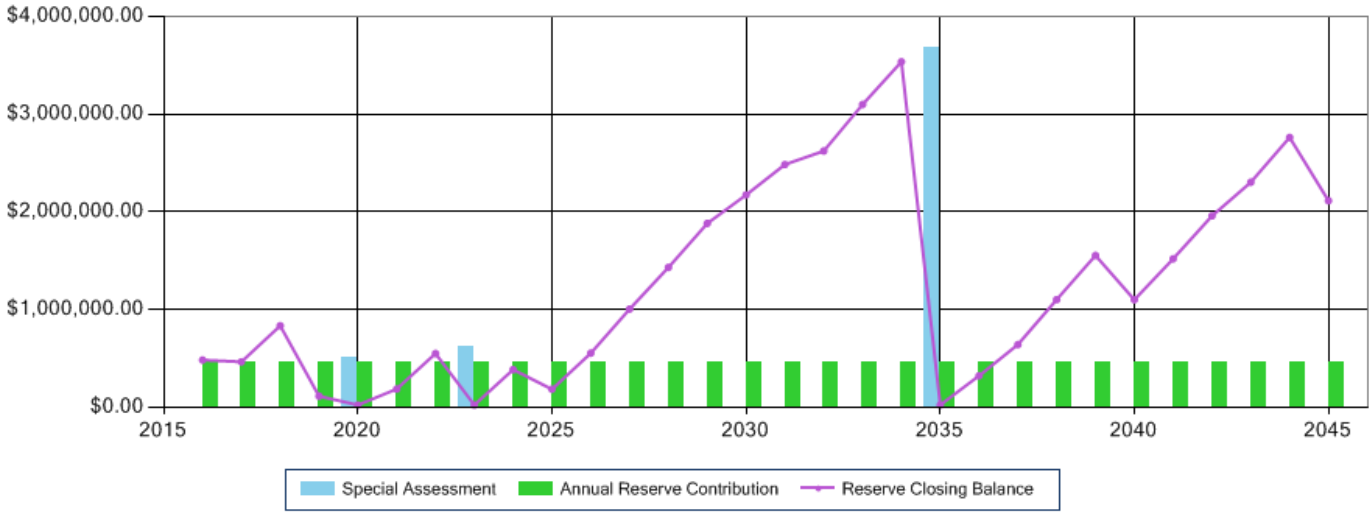
RDH
Making Buildings Better

Building - Funding Model
Electra

Name	R: Fixed Annual Funding of $460,000 (Alternative #2)
Type	Basic
Regarding	Electra
Start Year	2016
Interest/Investment Rate	2.0%
Estimated Contingency Allowance	$2,000
Tax Rate	0.0%
Planning Horizon	30
Number Of Units	448

Init Catchup Cost	$0
Operating Budget	$1,711,514
Starting Reserve Balance	$292,894
Reserve Contribution Threshold	$500,000
Contribution Below Threshold	$460,000
Contribution Above Threshold	$460,000
Reserve Contribution Increase	0.00 %
Monthly Avg. Unit Contribution	$86

Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2016	$292,894	$460,000	$0	$5,858	$272,240	$2,000	$0	$484,512	8.23 %
2017	$484,512	$460,000	$0	$9,690	$485,560	$2,000	$0	$466,642	7.80 %
2018	$466,642	$460,000	$0	$9,333	$97,820	$2,000	$0	$836,155	12.94 %
2019	$836,155	$460,000	$0	$16,723	$1,195,500	$2,000	$0	$115,378	1.95 %
2020	$115,378	$460,000	$509,674	$2,308	$1,060,360	$2,000	$0	$25,000	0.46 %
2021	$25,000	$460,000	$0	$500	$295,160	$2,000	$0	$188,340	3.34 %
2022	$188,340	$460,000	$0	$3,767	$98,484	$2,000	$0	$551,623	9.08 %
2023	$551,623	$460,000	$625,065	$11,032	$1,620,720	$2,000	$0	$25,000	0.49 %
2024	$25,000	$460,000	$0	$500	$96,340	$2,000	$0	$387,160	7.17 %
2025	$387,160	$460,000	$0	$7,743	$667,240	$2,000	$0	$185,663	3.56 %
2026	$185,663	$460,000	$0	$3,713	$92,054	$2,000	$0	$555,322	9.93 %
2027	$555,322	$460,000	$0	$11,106	$18,042	$2,000	$0	$1,006,387	16.61 %
2028	$1,006,387	$460,000	$0	$20,128	$51,760	$2,000	$0	$1,432,755	22.00 %
2029	$1,432,755	$460,000	$0	$28,655	$36,240	$2,000	$0	$1,883,170	26.91 %
2030	$1,883,170	$460,000	$0	$37,663	$204,120	$2,000	$0	$2,174,713	29.68 %
2031	$2,174,713	$460,000	$0	$43,494	$190,290	$2,000	$0	$2,485,918	32.31 %
2032	$2,485,918	$460,000	$0	$49,718	$369,726	$2,000	$0	$2,623,910	33.26 %
2033	$2,623,910	$460,000	$0	$52,478	$34,080	$2,000	$0	$3,100,308	36.86 %
2034	$3,100,308	$460,000	$0	$62,006	$82,980	$2,000	$0	$3,537,334	39.74 %
2035	$3,537,334	$460,000	$3,687,859	$70,747	$7,728,940	$2,000	$0	$25,000	1.81 %
2036	$25,000	$460,000	$0	$500	$159,440	$2,000	$0	$324,060	23.26 %
2037	$324,060	$460,000	$0	$6,481	$145,140	$2,000	$0	$643,401	45.50 %
2038	$643,401	$460,000	$0	$12,868	$10,440	$2,000	$0	$1,103,829	70.44 %
2039	$1,103,829	$460,000	$0	$22,077	$28,660	$2,000	$0	$1,555,246	91.16 %
2040	$1,555,246	$460,000	$0	$31,105	$942,002	$2,000	$0	$1,102,349	119.17 %
2041	$1,102,349	$460,000	$0	$22,047	$61,380	$2,000	$0	$1,521,016	156.00 %
2042	$1,521,016	$460,000	$0	$30,420	$49,380	$2,000	$0	$1,960,056	188.83 %
2043	$1,960,056	$460,000	$0	$39,201	$152,520	$2,000	$0	$2,304,737	230.93 %
2044	$2,304,737	$460,000	$0	$46,095	$45,920	$2,000	$0	$2,762,912	262.38 %
2045	$2,762,912	$460,000	$0	$55,258	$1,160,870	$2,000	$0	$2,115,300	100.00 %
		$13,800,000	$4,822,598		$17,453,408				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$0.00
2015
2020
2025
2030
2035
2040
2045
Special Assessment
Annual Reserve Contribution
Reserve Closing Balance

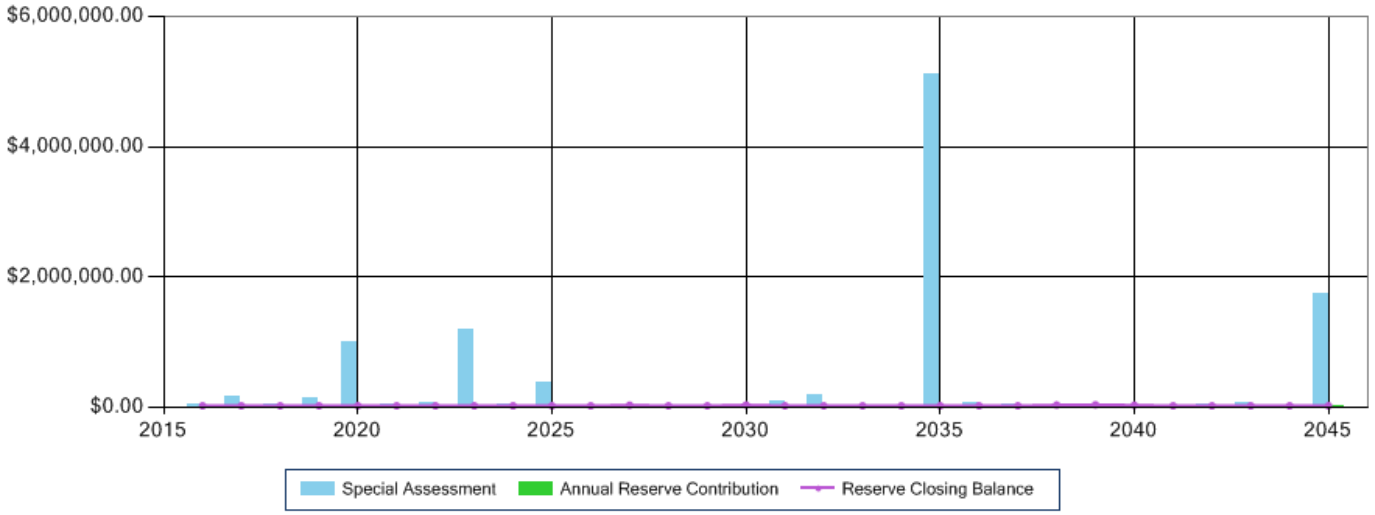
RDH
Making Buildings Better

Building - Funding Model
Electra

Name	C: Fixed Annual Funding of $ 20,000 (Status Quo)
Type	Basic
Regarding	Electra
Start Year	2016
Interest/Investment Rate	2.0%
Estimated Contingency Allowance	$2,000
Tax Rate	0.0%
Planning Horizon	30
Number Of Units	448

Init Catchup Cost	$0
Operating Budget	$1,711,514
Starting Reserve Balance	$132,587
Reserve Contribution Threshold	$500,000
Contribution Below Threshold	$20,000
Contribution Above Threshold	$20,000
Reserve Contribution Increase	0.00 %
Monthly Avg. Unit Contribution	$4

Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2016	$132,587	$20,000	$45,121	$2,652	$173,360	$2,000	$0	$25,000	0.70 %
2017	$25,000	$20,000	$163,540	$500	$182,040	$2,000	$0	$25,000	0.67 %
2018	$25,000	$20,000	$42,980	$500	$61,480	$2,000	$0	$25,000	0.62 %
2019	$25,000	$20,000	$135,900	$500	$154,400	$2,000	$0	$25,000	0.59 %
2020	$25,000	$20,000	$1,014,540	$500	$1,033,040	$2,000	$0	$25,000	0.70 %
2021	$25,000	$20,000	$58,340	$500	$76,840	$2,000	$0	$25,000	0.65 %
2022	$25,000	$20,000	$64,156	$500	$82,656	$2,000	$0	$25,000	0.61 %
2023	$25,000	$20,000	$1,201,980	$500	$1,220,480	$2,000	$0	$25,000	0.77 %
2024	$25,000	$20,000	$40,860	$500	$59,360	$2,000	$0	$25,000	0.71 %
2025	$25,000	$20,000	$386,660	$500	$405,160	$2,000	$0	$25,000	0.73 %
2026	$25,000	$20,000	$27,536	$500	$46,036	$2,000	$0	$25,000	0.68 %
2027	$25,000	$20,000	$0	$500	$9,228	$2,000	$0	$34,272	0.86 %
2028	$34,272	$20,000	$5,083	$685	$33,040	$2,000	$0	$25,000	0.58 %
2029	$25,000	$20,000	$5,660	$500	$24,160	$2,000	$0	$25,000	0.54 %
2030	$25,000	$20,000	$0	$500	$6,680	$2,000	$0	$36,820	0.74 %
2031	$36,820	$20,000	$93,504	$736	$124,060	$2,000	$0	$25,000	0.48 %
2032	$25,000	$20,000	$201,784	$500	$220,284	$2,000	$0	$25,000	0.47 %
2033	$25,000	$20,000	$15,220	$500	$33,720	$2,000	$0	$25,000	0.44 %
2034	$25,000	$20,000	$28,420	$500	$46,920	$2,000	$0	$25,000	0.41 %
2035	$25,000	$20,000	$5,117,060	$500	$5,135,560	$2,000	$0	$25,000	2.54 %
2036	$25,000	$20,000	$76,160	$500	$94,660	$2,000	$0	$25,000	2.49 %
2037	$25,000	$20,000	$44,660	$500	$63,160	$2,000	$0	$25,000	2.38 %
2038	$25,000	$20,000	$0	$500	$6,960	$2,000	$0	$36,540	3.16 %
2039	$36,540	$20,000	$0	$731	$15,240	$2,000	$0	$40,031	3.19 %
2040	$40,031	$20,000	$0	$801	$24,668	$2,000	$0	$34,163	2.53 %
2041	$34,163	$20,000	$9,673	$683	$37,520	$2,000	$0	$25,000	1.74 %
2042	$25,000	$20,000	$40,420	$500	$58,920	$2,000	$0	$25,000	1.66 %
2043	$25,000	$20,000	$81,180	$500	$99,680	$2,000	$0	$25,000	1.64 %
2044	$25,000	$20,000	$4,780	$500	$23,280	$2,000	$0	$25,000	1.54 %
2045	$25,000	$20,000	$1,745,280	$500	$1,763,780	$2,000	$0	$25,000	100.00 %
		$600,000	$10,650,497		$11,316,372				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Special Assessment
Annual Reserve Contribution
Reserve Closing Balance

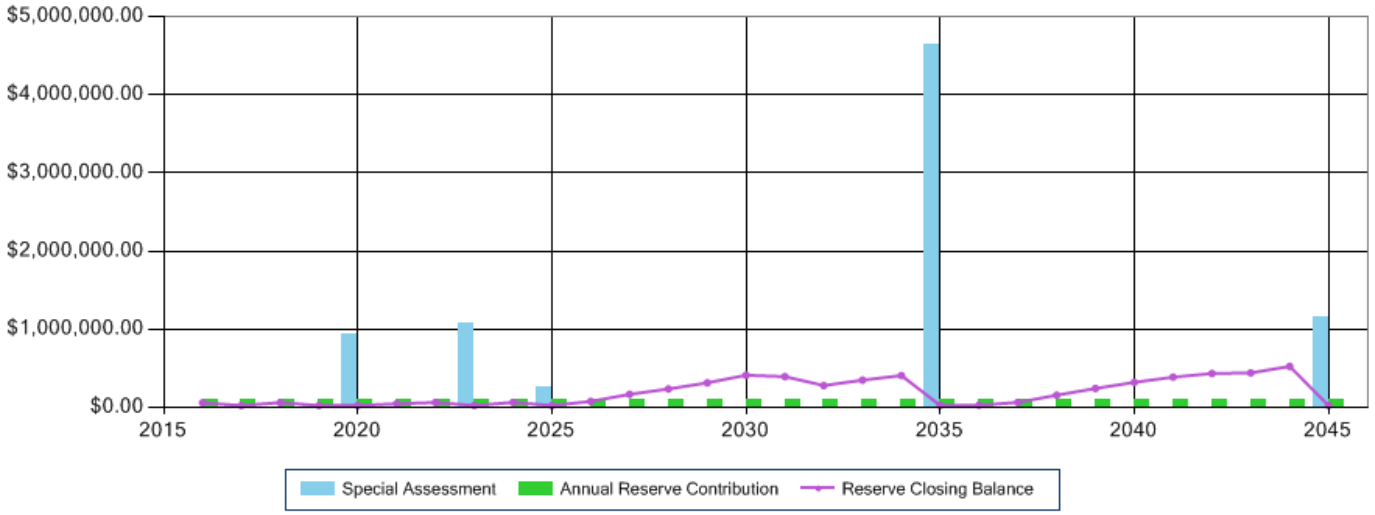
RDH
Making Buildings Better

Building - Funding Model
Electra

Name	C: Fixed Annual Funding of $100,000 (Alternative #1)
Type	Basic
Regarding	Electra
Start Year	2016
Interest/Investment Rate	2.0%
Estimated Contingency Allowance	$2,000
Tax Rate	0.0%
Planning Horizon	30
Number Of Units	448

Init Catchup Cost	
Operating Budget	$1,711,514
Starting Reserve Balance	$132,587
Reserve Contribution Threshold	$500,000
Contribution Below Threshold	$100,000
Contribution Above Threshold	$100,000
Reserve Contribution Increase	0.00 %
Monthly Avg. Unit Contribution	$19

Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2016	$132,587	$100,000	$0	$2,652	$173,360	$2,000	$0	$59,879	1.67 %
2017	$59,879	$100,000	$47,964	$1,198	$182,040	$2,000	$0	$25,000	0.67 %
2018	$25,000	$100,000	$0	$500	$61,480	$2,000	$0	$62,020	1.55 %
2019	$62,020	$100,000	$18,140	$1,240	$154,400	$2,000	$0	$25,000	0.59 %
2020	$25,000	$100,000	$934,540	$500	$1,033,040	$2,000	$0	$25,000	0.70 %
2021	$25,000	$100,000	$0	$500	$76,840	$2,000	$0	$46,660	1.22 %
2022	$46,660	$100,000	$0	$933	$82,656	$2,000	$0	$62,937	1.54 %
2023	$62,937	$100,000	$1,083,284	$1,259	$1,220,480	$2,000	$0	$25,000	0.77 %
2024	$25,000	$100,000	$0	$500	$59,360	$2,000	$0	$64,140	1.84 %
2025	$64,140	$100,000	$266,737	$1,283	$405,160	$2,000	$0	$25,000	0.73 %
2026	$25,000	$100,000	$0	$500	$46,036	$2,000	$0	$77,464	2.12 %
2027	$77,464	$100,000	$0	$1,549	$9,228	$2,000	$0	$167,785	4.24 %
2028	$167,785	$100,000	$0	$3,356	$33,040	$2,000	$0	$236,101	5.54 %
2029	$236,101	$100,000	$0	$4,722	$24,160	$2,000	$0	$314,663	6.88 %
2030	$314,663	$100,000	$0	$6,293	$6,680	$2,000	$0	$412,276	8.38 %
2031	$412,276	$100,000	$0	$8,246	$124,060	$2,000	$0	$394,462	7.64 %
2032	$394,462	$100,000	$0	$7,889	$220,284	$2,000	$0	$280,067	5.26 %
2033	$280,067	$100,000	$0	$5,601	$33,720	$2,000	$0	$349,948	6.19 %
2034	$349,948	$100,000	$0	$6,999	$46,920	$2,000	$0	$408,027	6.82 %
2035	$408,027	$100,000	$4,646,372	$8,161	$5,135,560	$2,000	$0	$25,000	2.54 %
2036	$25,000	$100,000	$0	$500	$94,660	$2,000	$0	$28,840	2.87 %
2037	$28,840	$100,000	$0	$577	$63,160	$2,000	$0	$64,257	6.11 %
2038	$64,257	$100,000	$0	$1,285	$6,960	$2,000	$0	$156,582	13.56 %
2039	$156,582	$100,000	$0	$3,132	$15,240	$2,000	$0	$242,474	19.33 %
2040	$242,474	$100,000	$0	$4,849	$24,668	$2,000	$0	$320,655	23.78 %
2041	$320,655	$100,000	$0	$6,413	$37,520	$2,000	$0	$387,548	27.06 %
2042	$387,548	$100,000	$0	$7,751	$58,920	$2,000	$0	$434,379	28.99 %
2043	$434,379	$100,000	$0	$8,688	$99,680	$2,000	$0	$441,387	29.00 %
2044	$441,387	$100,000	$0	$8,828	$23,280	$2,000	$0	$524,934	32.48 %
2045	$524,934	$100,000	$1,155,347	$10,499	$1,763,780	$2,000	$0	$25,000	100.00 %
		$3,000,000	$8,152,383		$11,316,372				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Special Assessment
Annual Reserve Contribution
Reserve Closing Balance

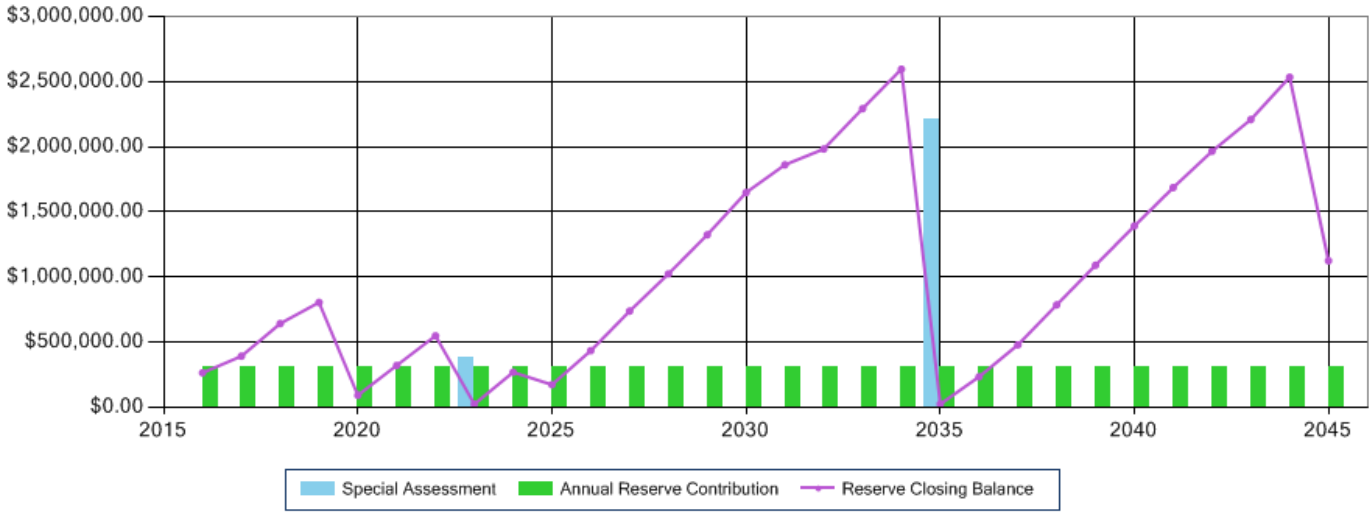
RDH
Making Buildings Better

Building - Funding Model
Electra

Name	C: Fixed Annual Funding of $306,000 (Alternative #2)
Type	Basic
Regarding	Electra
Start Year	2016
Interest/Investment Rate	2.0%
Estimated Contingency Allowance	$2,000
Tax Rate	0.0%
Planning Horizon	30
Number Of Units	448

Init Catchup Cost	$0
Operating Budget	$1,711,514
Starting Reserve Balance	$132,587
Reserve Contribution Threshold	$500,000
Contribution Below Threshold	$306,000
Contribution Above Threshold	$306,000
Reserve Contribution Increase	0.00 %
Monthly Avg. Unit Contribution	$57

Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2016	$132,587	$306,000	$0	$2,652	$173,360	$2,000	$0	$265,879	7.44 %
2017	$265,879	$306,000	$0	$5,318	$182,040	$2,000	$0	$393,156	10.56 %
2018	$393,156	$306,000	$0	$7,863	$61,480	$2,000	$0	$643,539	16.09 %
2019	$643,539	$306,000	$0	$12,871	$154,400	$2,000	$0	$806,010	19.21 %
2020	$806,010	$306,000	$0	$16,120	$1,033,040	$2,000	$0	$93,091	2.63 %
2021	$93,091	$306,000	$0	$1,862	$76,840	$2,000	$0	$322,112	8.47 %
2022	$322,112	$306,000	$0	$6,442	$82,656	$2,000	$0	$549,899	13.49 %
2023	$549,899	$306,000	$380,583	$10,998	$1,220,480	$2,000	$0	$25,000	0.77 %
2024	$25,000	$306,000	$0	$500	$59,360	$2,000	$0	$270,140	7.76 %
2025	$270,140	$306,000	$0	$5,403	$405,160	$2,000	$0	$174,383	5.15 %
2026	$174,383	$306,000	$0	$3,488	$46,036	$2,000	$0	$435,834	11.94 %
2027	$435,834	$306,000	$0	$8,717	$9,228	$2,000	$0	$739,323	18.68 %
2028	$739,323	$306,000	$0	$14,786	$33,040	$2,000	$0	$1,025,070	24.09 %
2029	$1,025,070	$306,000	$0	$20,501	$24,160	$2,000	$0	$1,325,411	28.98 %
2030	$1,325,411	$306,000	$0	$26,508	$6,680	$2,000	$0	$1,649,239	33.52 %
2031	$1,649,239	$306,000	$0	$32,985	$124,060	$2,000	$0	$1,862,164	36.08 %
2032	$1,862,164	$306,000	$0	$37,243	$220,284	$2,000	$0	$1,983,123	37.31 %
2033	$1,983,123	$306,000	$0	$39,662	$33,720	$2,000	$0	$2,293,066	40.59 %
2034	$2,293,066	$306,000	$0	$45,861	$46,920	$2,000	$0	$2,596,007	43.40 %
2035	$2,596,007	$306,000	$2,208,633	$51,920	$5,135,560	$2,000	$0	$25,000	2.54 %
2036	$25,000	$306,000	$0	$500	$94,660	$2,000	$0	$234,840	23.43 %
2037	$234,840	$306,000	$0	$4,697	$63,160	$2,000	$0	$480,377	45.75 %
2038	$480,377	$306,000	$0	$9,608	$6,960	$2,000	$0	$787,024	68.19 %
2039	$787,024	$306,000	$0	$15,740	$15,240	$2,000	$0	$1,091,525	87.04 %
2040	$1,091,525	$306,000	$0	$21,830	$24,668	$2,000	$0	$1,392,687	103.31 %
2041	$1,392,687	$306,000	$0	$27,854	$37,520	$2,000	$0	$1,687,021	117.80 %
2042	$1,687,021	$306,000	$0	$33,740	$58,920	$2,000	$0	$1,965,842	131.23 %
2043	$1,965,842	$306,000	$0	$39,317	$99,680	$2,000	$0	$2,209,478	145.16 %
2044	$2,209,478	$306,000	$0	$44,190	$23,280	$2,000	$0	$2,534,388	156.83 %
2045	$2,534,388	$306,000	$0	$50,688	$1,763,780	$2,000	$0	$1,125,296	100.00 %
		$9,180,000	$2,589,216		$11,316,372				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Special Assessment
Annual Reserve Contribution
Reserve Closing Balance

Appendix E

Disclosures and Disclaimers

Disclosures and Disclaimers

Condition of the Assets

The method of determining the physical condition of the assets is based on a visual review of a representative sampling of the assets in readily accessible locations, discussions with facility representatives, and review of readily available reference documents. No destructive testing or exploratory openings are carried out on any of the assets and the equipment is not disassembled, operated, or subject to re-commissioning tests. The physical review is not a full "condition assessment" since operating, testing, or exploratory openings are excluded from the scope of services.

Cost Estimating for Assets

- All estimates of costs are provided in future year dollars.
- All estimates of costs are Class D estimates intended for planning purposes and not for accounting or tender use. See Glossary of Terms for definition of Class D estimates.
- Actual costs will vary depending on several factors. The estimates assume economies of scale will be achieved by bundling work tasks together into larger renewal, repair, or rehabilitation projects. Small tasks performed individually may exceed the estimates presented.
- Soft costs, such as consulting services and contingency allowances are not included in the budget estimates. When developing cost estimates for projects in greater detail for budgeting, each project should include appropriate soft costs - such as Owner contingency, permit fees, engineering fees, etc. Depending on the sizes, scope and timing of individual projects, the magnitude of the soft costs will vary.
- Construction costs are subject to the vagaries of the marketplace. At the time of tender, costs may vary depending on the time of the year, contractor availability, and other factors.
- The estimates must be updated over time, further developed for scope of work and confirmed by competitive tender before any contracts are awarded.
- Detailed repair specifications are required to be prepared in order to confirm scopes of work and costs.
- The estimates do not include allowances for site specific access requirements or environmental concerns, which should be addressed on a project-by-project basis.
- Consideration may sometimes need to be given to costs arising from the impact of projects on occupancy use and facility operations.
- 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.

Maintenance of the Assets:

The maintenance checklists are not exhaustive and are intended as a framework for the ongoing refinement of the maintenance program.

- Work must only be carried out by appropriately qualified personnel who have the necessary and sufficient knowledge about the maintenance tasks and maintenance intervals.
- The manufacturers' latest printed instructions should take precedence in the event of any conflict with the maintenance checklists.
- The Owners' maintenance staff and/or service contractors are responsible to verify what is contained in the manufacturers' documentation regarding recommended maintenance procedures and intervals.
- The maintenance checklists and maintenance intervals should be reviewed annually and adjusted, as required, to reflect the service environment, feedback from contractors, etc.

Specialist and Non-Specialist Reviews

Our personnel collect the asset inventory data for all the different systems, including mechanical, plumbing, fire safety, elevator, electrical, interior finishes, and sitework. Our scope of services is to identify the assets within each system, determine their age and report on their reasonable service life-cycles according to accepted industry standards. RDH personnel do not make observations with regard to specialty building system conditions unless specifically addressed in our proposal.

Forecasting the Useful Service Life of Assets

The service life of assets can be affected by a variety of circumstances, including the following:

- The quality of the maintenance conducted on an asset will affect the service life of the asset. Poor maintenance can lead to a reduced service life and may result in the premature failure of an asset.
- Insurable losses (force majeure), such as earthquakes, fires, and floods can shorten the life of an asset. These events are not considered in a Depreciation Report.
- Asset service life in a Depreciation Report is determined according to accepted industry standards.

Funding Models

The funding models for Depreciation Reports are based on a 30-year horizon and use "future year dollars termed" methodology. This methodology projects the costs (in future year dollars) over the planning horizon and not beyond the terminus year of the planning horizon. The current year is the starting year of the planning horizon. The term,

therefore, matches the initial horizon and does not respect a shifting horizon. This means that in year 1 the funding scenarios will look forward for 30 years.

For example, in 2012 the model looks forward to 2042. In year two, it will be accurate for 29 years, as it is only looking forward to year 2042. When an update study is performed in three years, the revised funding scenarios will look forward 30 years from 2015 to 2045. Renewal and major maintenance projects that occur beyond the 30-year planning horizon are not considered in the scenarios; that is, those projects that occur beyond 30 years are unfunded in the funding scenarios.

Appendix F

RDH Qualifications

Maintenance and Planning (MaP)

Our Maintenance and Planning (MaP) group works with your owner group to plan and develop strategies for the long- and short-term needs of your building—everything from roof maintenance to boiler replacement. As the acronym suggests, our services are designed so that we can provide you with a comprehensive roadMaP for the management of your assets.

RDH staff have broad practical experience assisting building owners with all aspects of planning for the long term stewardship of their building(s). Our reserve fund analysts, engineers, architects, and technologists have a wide variety of formal training—including building science, structural engineering, and mechanical engineering. We believe that by using a team approach, we can ensure an appropriate level of thoroughness and quality. We have prepared hundreds of Depreciation Reports and are recognized as industry leaders.

Depreciation Reports

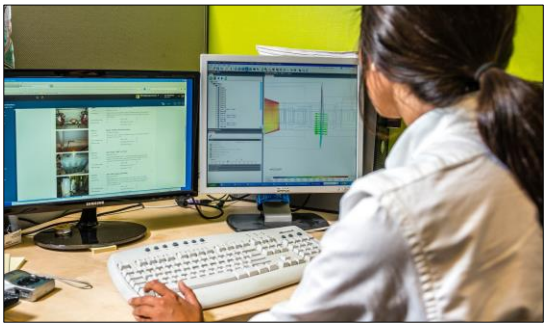
A depreciation report is a long-range financial planning tool. It's used to identify funding requirements for costs associated with future repair, renewal, and replacement projects. The report establishes where you need to focus resources and is a good place to start developing your roadMaP.

The first step in preparing the report is to compile an inventory of all of your building's assets (roofs, boilers, carpets, etc.). Using the inventory as a foundation, we estimate the remaining life of each asset, forecast the replacement costs in future-year dollars, and display the financial analysis with graphs and cash flow tables.

Building Asset Management Software

All of this information is accessible through our propriety online BAM software—we do the groundwork and provide the critical information so that you can leverage the software to track and report on maintenance, repair, and renewal activities. Alternatively, we can follow up and manage the activities on your behalf.

The software tool also empowers you to create your own funding scenarios so you can evaluate different funding levels and find a solution that works specifically for your building. Where a depreciation report identifies what items you need to spend money on and when you need to spend it, this tool helps you optimize the way you spend your money. Ultimately, we can help you track what work is completed versus what is outstanding so that you are better able to produce reports and make informed decisions.



About Us

Serge Desmarais, B.Arch. Architect AIBC, CP

Managing Principal, Senior Building Science Specialist

- Registered architect, AIBC, Certified Professional, UBC
- 30 years' experience in building design and construction capital renewal projects
- Technical lead for MaPs

Peter Fitch, C.Tech.

Senior Project Manager, Mechanical Specialist

- UBC/UBCM Certified Professional program (audit only)
- Member of Applied Science Technologists & Technicians of British Columbia
- 40 years' experience in the mechanical design field
- Technical review of asset inventories for MEFS and site assets

Laureen Stokes, Dipl.T.

Associate, Project Manager

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)
- Regional group leader for MaP Vancouver
- 4 years' experience in building science consulting
- 4 years' experience in MaP consulting

Jason Dunn, B.Arch.Sc., CCCA

Associate, Project Manager

- B.Arch.Sc, Building Science Option
- Certified Construction Contract Administrator, CSC
- 10+ years' experience in building science consulting

Brandon Carreira, Dipl.T.

Maintenance and Planning Technologist

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)
- 4 years' experience in maintenance and planning consulting
- Prepared over 50+ depreciation reports and has been involved with 75+ MaP projects

Roma Santos, Dipl.T.

Maintenance and Planning Technologist

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)
- 2+ years' experience in maintenance and planning consulting and has prepared 50+ depreciation reports

Jesse Listoen, Dipl.T.

Maintenance and Planning Technologist

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)
- 2+ years' experience in maintenance and planning consulting and has prepared 50+ depreciation reports

Roya Kiani Amin, B.Sc., AScT

Maintenance and Planning Technologist

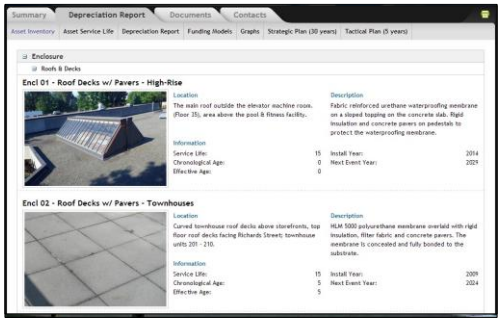
- B.Sc., Civil Engineering
- AScT, Certified Applied Science Technologist
- 5+ years' experience in architectural drafting
- 4+ years' experience as senior quantity estimator providing quantity estimating for depreciation reports + QTO quality assurance and quality control
- 1+ years' experience in MaP consulting and preparation of depreciation reports

Administrators and Client Support

Vanessa Jumawan

Maintenance and Planning Coordinator

- 5+ years' experience in administration within engineering/architecture
- Preparation of depreciation report estimates and proposals



Anna Qiu

Maintenance and Planning Project Assistant

- Certificate, Business Administration
- 10+ years' experience in administration within engineering/architecture firms
- BAMs user account setup and maintenance

Software Support and Programmers

Matthew Branch, P.Eng.

Software Engineer

- B.Sc., Civil Engineering
- Registered professional engineer, APEGBC
- 13+ years' experience in engineering data analysis

Appendix G

Insurance Certificate

Ref. No. 320007422038

CERTIFICATE OF INSURANCE

Aon Reed Stenhouse Inc.
401 West Georgia Street, Suite 1200
PO Box 3228 STN. TERMINAL
Vancouver BC V6B 3X8
tel 604-688-4442 *fax* 604-682-4026

Re: Evidence of Insurance:

To Whom It May Concern

Insurance as described herein has been arranged on behalf of the Insured named herein under the following policy(ies) and as more fully described by the terms, conditions, exclusions and provisions contained in the said policy(ies) and any endorsements attached thereto.

Insured

RDH Building Science Inc.
224 West 8th Avenue
Vancouver, BC V5Y 1N5

Coverage

Commercial General Liability — **Insurer** Zurich Insurance Company Ltd

Policy #	8611292		
Effective	02-May-2016	**Expiry**	02-May-2017
Limits of Liability	Bodily Injury & Property Damage, Each Occurrence $1,000,000 Products and Completed Operations, Aggregate $1,000,000 Non-Owned Automobile Liability $1,000,000 Policy may be subject to a general aggregate and other aggregates where applicable		

Professional Liability — **Insurer** Lloyd's Underwriters

Policy #	QC1602155		
Effective	02-May-2016	**Expiry**	02-May-2017
Limits of Liability	Subject to aggregate where applicable		

Terms and / or Additional Coverage

Professional Liability
Limit: $2,000,000 Per Claim Limit / $4,000,000 Aggregate Limit

THE POLICY CONTAINS A CLAUSE THAT MAY LIMIT THE AMOUNT PAYABLE
OR, IN THE CASE OF AUTOMOBILE INSURANCE,
THE POLICY CONTAINS A PARTIAL PAYMENT OF LOSS CLAUSE

AON

Ref. No. 320007422038

CERTIFICATE OF INSURANCE

Commercial General Liability

Products and Completed Operations
Broad Form Property Damage
Cross Liability
Contractual Liability
Owners and Contractors Protective
Contractual Liability included

THIS CERTIFICATE CONSTITUTES A STATEMENT OF THE FACTS AS OF THE DATE OF ISSUANCE AND ARE SO REPRESENTED AND WARRANTED ONLY TO THE INSURED. OTHER PERSONS RELYING ON THIS CERTIFICATE DO SO AT THEIR OWN RISK.

Aon Reed Stenhouse Inc.

L Hadden

Dated : 03-May-2016
Issued By : McLean,Chris J.
Tel : 1-604-688-4442

THE POLICY CONTAINS A CLAUSE THAT MAY LIMIT THE AMOUNT PAYABLE
OR, IN THE CASE OF AUTOMOBILE INSURANCE,
THE POLICY CONTAINS A PARTIAL PAYMENT OF LOSS CLAUSE

AON