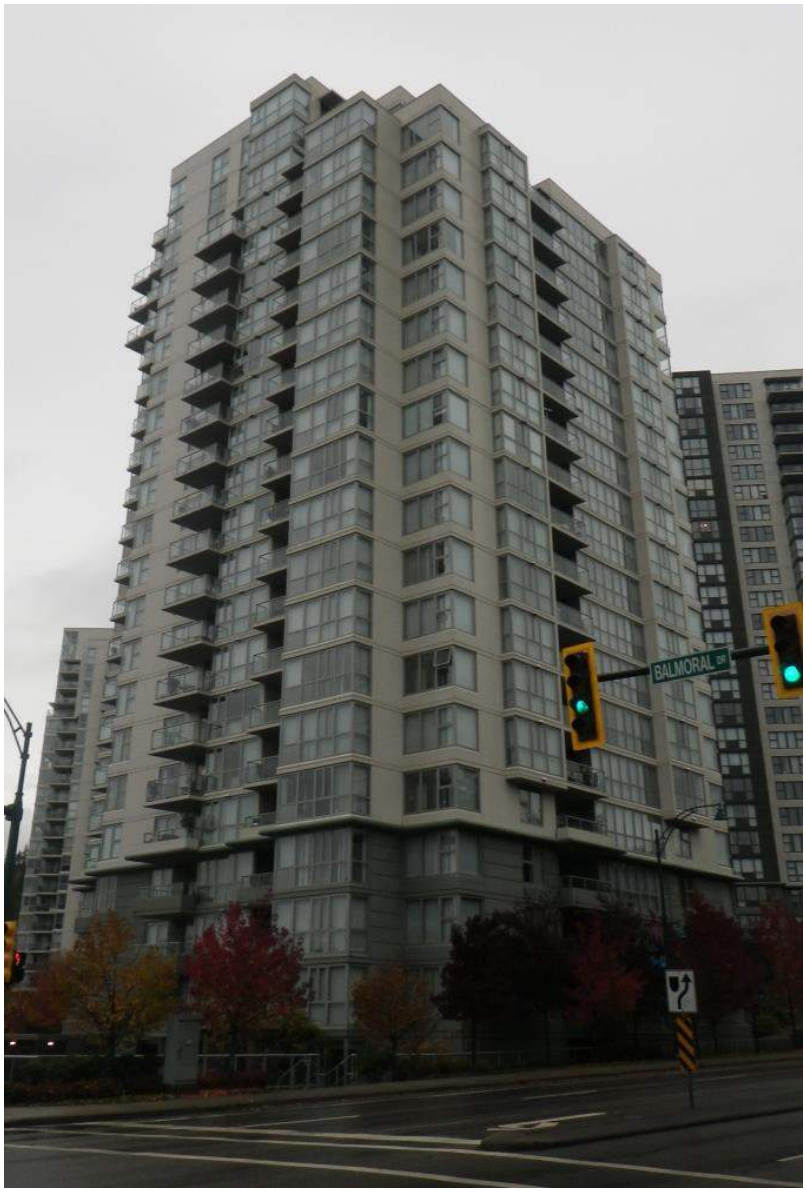
2014 Depreciation Report

The Bentley, 295 Guildford Way, Port Moody, BC



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Appendices

1. Introduction

RDH Building Engineering Ltd. (RDH) was retained by The Owners, Strata Plan BCS2176 (the Owners) to prepare a Depreciation Report (the Report) for the building known as The Bentley, located at 295 Guildford Way, Port Moody, BC. 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, fences, water heaters and paving).

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.

A site visit was completed on November 7, 2013, and the financial data is based on the 2013/2014 fiscal year. A draft report was distributed to the strata council and strata management on January 30, 2014.

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 Bentley

The Bentley is a 7 year old strata complex comprised of one high-rise building. The building is of cast-in-place concrete construction with steel stud infill walls.

The principal systems in the building 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.

Key physical parameters of The Bentley are summarized in Table 2.1.1 below.

Table 2.1.1 Key Physical Parameters

Parameters, including age and size	
Date of first occupancy (approximate)	2007
Approximate gross floor area, including the parkade (Square Feet)	279,000
Stories above grade	22
Total number of strata lots	137

Fig. 2.1.2 Northeast elevation of The Bentley.

Fig. 2.1.3 Aerial view of The Bentley.

Map Data © Google Maps 2014.

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 Fig. 3.1 below:

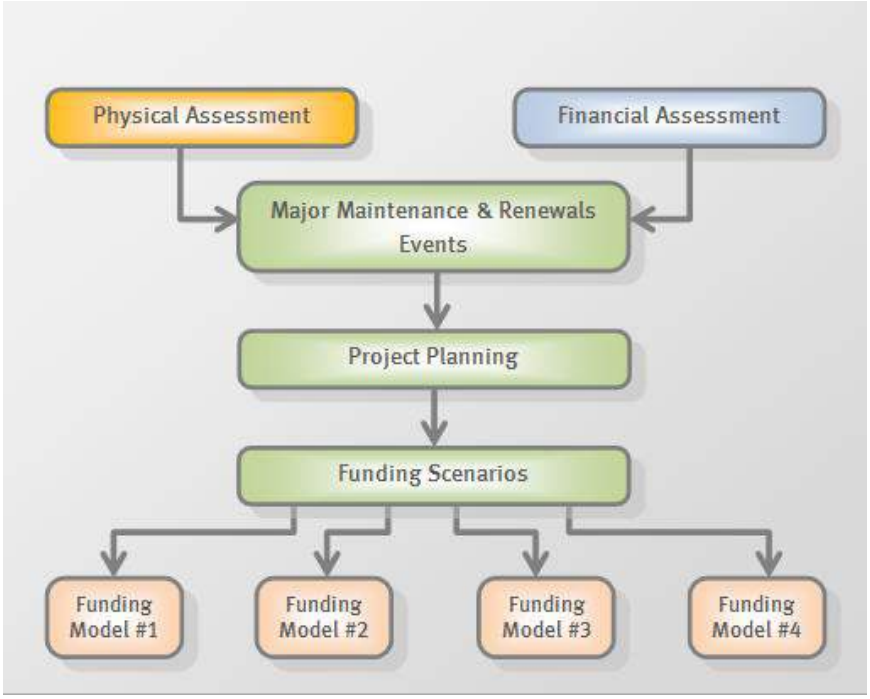

Fig. 3.1 Depreciation Report Process

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.

Some Assets have been identified as *placeholders.* Placeholder Assets are included in the Asset Inventory for reference purpose, however they are not included in the financial analysis and do not affect the funding models or other financial calculations. Placeholder Assets are identified based on typical agreements with utilities, the Strata Corporation bylaws, and information provided by the strata manager and council. A summary of placeholder assets is provided in Table 3.1.1 below.

Table 3.1.1 Summary of placeholder assets.

Asset	Party responsible for capital expenditures
ELEC 01 – Distribution Transformer - Exterior	BC Hydro

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, and the general ledger,
- 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 Bentley is relatively young, and aside from deficiencies from the original construction, few renewals have taken place.

On November 7 , 2013, a representative of RDH Building Engineering Ltd. visited the site to visually review the Assets. In addition, a sub-consultant 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 3.1.2 includes examples of some observations made during the review.

Table 3.1.2 Observations by system

System	Observation
Building Enclosure	⇢ The urethane balcony membranes are well protected overall. There are a few balconies on the top levels that are highly exposed to rain and sun (UV) exposure. ⇢ The urethane balcony membranes appeared to be in good condition at reviewed locations. ⇢ Evidence of localized concrete crack repairs at the ground and roof level. ⇢ The roof and deck membranes of the Bentley are protected with overburden material (concrete pavers, filter fabric, insulation, etc.). The specific type of roof and deck membrane was not identified during the site review; however, original construction drawings suggest that they are a liquid-applied polyurethane waterproof membrane. A more comprehensive review of these membranes is suggested in order to confirm a specific service life.

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 Strata Corporation. Table 3.2.1 below summarizes the key financial parameters reviewed as part of the financial assessment.

Table 3.2.1 Key Financial Parameters

Parameter	2013/2014
Fiscal Year End	February 28
Building Reproduction Cost	$39,852,000
Operating Budget (excluding CRF contribution)	$457,274
Annual CRF Allocation (2013/2014)	
⇢ CRF-Non Segregated	$38,000
⇢ Exterior Building Maintenance	$25,000
⇢ Total	$63,000
Accumulated CRF Balance*	$344,179

* *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 current as of February 2014.*

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.

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 Bentley is now approximately 7 years old, and many Assets date from original construction. As a result, some renewal expenditures can be anticipated in the next 10 years. Table 4.1.1 below summarizes all major maintenance and renewal costs by system, including costs forecast for the next 30 years.

Table 4.1.1 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	$627,000	$668,000	$3,698,000	$5,014,000
Electrical	$117,000	$129,000	$669,000	$1,025,000
Mechanical	$92,000	$106,000	$1,717,000	$2,594,000
Elevator	$0	$0	$474,000	$724,000
Fire Safety	$12,000	$14,000	$204,000	$290,000
Interior Finishes	$187,000	$220,000	$516,000	$750,000
Amenities	$11,000	$12,000	$31,000	$42,000
Sitework	$23,000	$27,000	$52,000	$73,000
Building Total	**$1,069,000**	**$1,175,000**	**$7,359,000**	**$10,511,000**

Section 5 discusses the timing and size of renewal projects forecast for the next 30 years. A detailed list of each major maintenance and renewal 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 11% 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 Fig. 4.1.2 below.

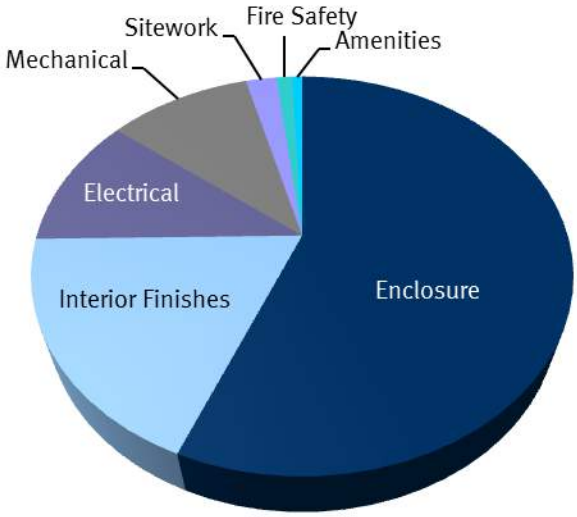

Fig. 4.1.2 Distribution of capital expenditures over 10 years by system.

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 (Fig. 5.1.1). The red bars represent the estimated value of capital costs.

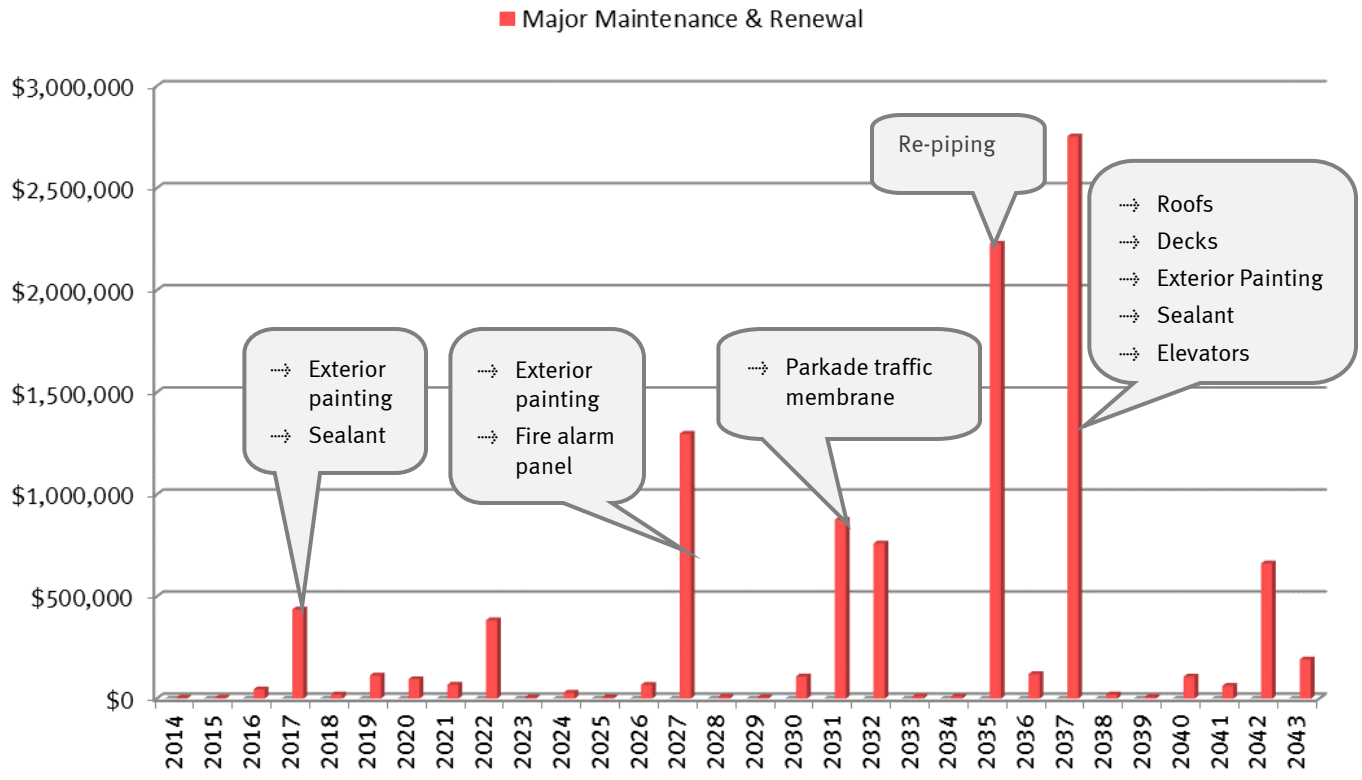

Fig. 5.1.1 Strategic Forecast (30 Years), showing the approximate timing and value of some key capital expenditures.

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 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 (Fig. 5.2.1). 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.

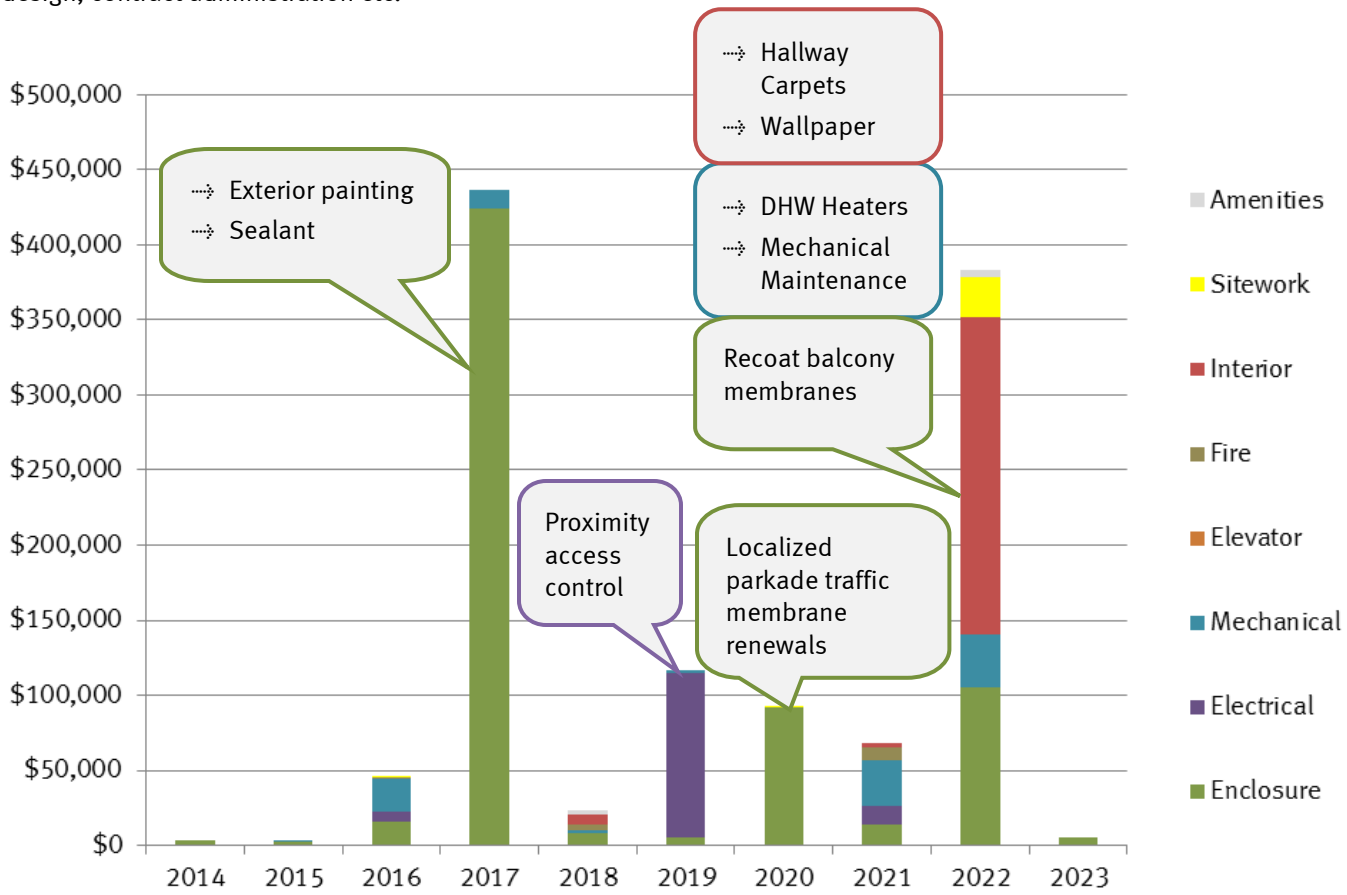

Fig. 5.2.1 Tactical Forecast (10 years), showing the approximate timing and value of some key capital expenditures.

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

To help the Strata Corporation start the project planning process, Table 5.2.1 below 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 5.2.1 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. ⇢ Repainting of exterior concrete walls. ⇢ Locally repair exterior concrete walls, as required. ⇢ Replacement of exterior sealant. ⇢ Conducting of 10-year warranty review. ⇢ Overhaul of sump pumps. ⇢ Cleaning and testing of electrical distribution equipment. ⇢ Conducting of sanitary drain scoping and inspection. ⇢ Augering of sanitary drain lines.
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. ⇢ Modernization of components of proximity access control at end of technological life. ⇢ Reapplication of parkade traffic membrane at high traffic areas. ⇢ Replacement of domestic booster pumps. ⇢ Cyclical replacement of domestic hot water storage tanks. ⇢ Replacement of failed insulated glazing units (IGUs). ⇢ Reapplication of top coat of urethane balcony membranes. ⇢ Cyclical replacement of miscellaneous pumps, valves, and fans. ⇢ Replacement of hallway and amenity carpets. ⇢ Replacement of hallway and amenity wallpaper.
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. ⇢ No time based renewals were identified.

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

There are no significant renewal and/or major maintenance projects forecast for the next fiscal year.

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 Funding Requirements

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 6.1.1below shows the calculation to confirm the Strata Corporation meets the minimum requirements set out in the Strata Property Act Regulation.

Table 6.1.1 Minimum Funding Requirement Calculation

Parameter	Value	
2013/2014 annual operating budget (not including CRF contribution)	$	457,274
• 25% of the annual operating budget	$	114,319
• 10% of the annual operating budget	$	45,727
February 2014 CRF Balance	$	344,179
2013/2014 CRF Contribution	$	63,000
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?		Yes

Although the Strata Corporation exceeds 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.

6.2. Alternative Funding Scenarios

The funding scenarios below compare the financial impact of different funding levels over the next 30 years. 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 6.2.1 below compares four alternatives: Statutory reserve allocation, 2013/2014 (Current or Status quo) reserve allocation, Alternative #1 and Progressive reserve allocation.

- ***Statutory Reserve Allocation.*** The CRF allocation required to meet the statutory requirements in BC, as described in section 6.1 above. For comparison purposes, the table below shows the amount equal to 10% of the operating budget, this is the maximum that would be allocated to the reserve fund annually under this scenario.
- ***2013/2014 (Current) Reserve Allocation.*** The CRF allocation that was approved by the Owners at the last Annual General Meeting. 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.
- ***Progressive Reserve Allocation.*** This 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 6.2.1 Comparison of Different Funding Scenarios

	Statutory	Current (2013/2014)	Alternative #1	Progressive Reserve
Annual CRF allocation	$0 to $45,727	$63,000	$100,000	$335,000
Percent of progressive reserve	14 %	19%	30 %	100 %
CRF contribution per average strata lot				
- Per month	$0 to $28	$38	$61	$204
- Per year	$0 to $336	$456	$732	$2,448
Approximate number of special levies (over next 30 years)	15	9	8	0
Approximate value of special levies (over next 30 years)	$9.0M	$8.3M	$7.1M	-
Assumed Inflation Rate	2 %	2 %	2 %	2 %
Assumed Interest Rate	2 %	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. Statutory Funding Scenario

The first scenario is based on the minimum funding level required by the Strata Property Act Regulation, as described in section 6.1 above. The scenario is based a variable annual CRF contribution over the 30-year planning horizon; when the CRF closing balance is greater than 25% of the estimated operating budget, no funds are deposited into the CRF.

Table 6.3.1 Statutory Funding Model: Cash Flow Table

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2014	$344,179	$0	$0	$6,884	$3,640	$2,000	$345,423
2015	$345,423	$0	$0	$6,908	$3,800	$2,000	$346,531
2016	$346,531	$0	$0	$6,931	$45,000	$2,000	$306,462
2017	$306,462	$0	$126,209	$6,129	$436,800	$2,000	$0
2018	$0	$45,727	$0	$0	$20,500	$2,000	$23,227
2019	$23,227	$45,727	$45,981	$465	$113,400	$2,000	$0
2020	$0	$45,727	$51,573	$0	$95,300	$2,000	$0
2021	$0	$45,727	$24,273	$0	$68,000	$2,000	$0
2022	$0	$45,727	$339,973	$0	$383,700	$2,000	$0
2023	$0	$45,727	$0	$0	$5,100	$2,000	$38,627

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.

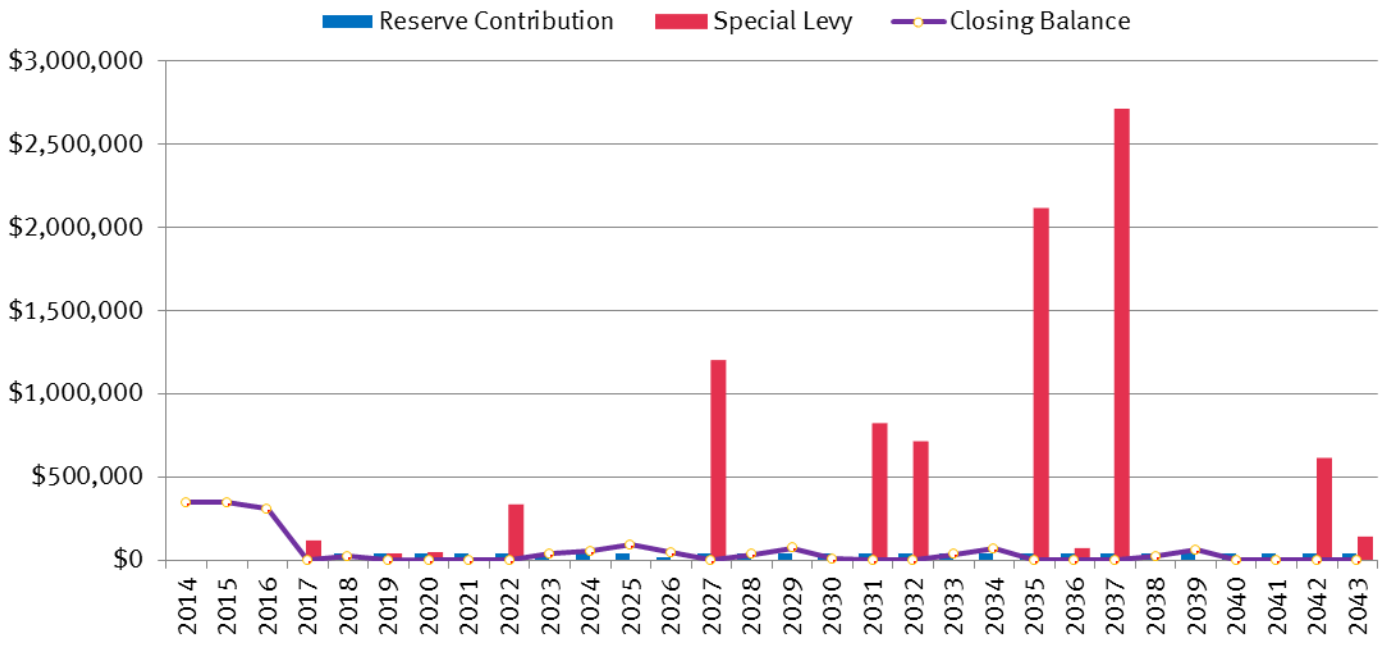

Fig. 6.3.1 CRF balance, contribution and special levies based on the statutory minimum funding.

The minimum CRF contributions required by the Strata Property Act Regulation will result in numerous special levies, and is generally not considered adequate as a long-term funding strategy.

6.4. Current (2013/2014) Funding Scenario

The current funding scenario is based on the CRF contribution approved by the Owners at the last annual general meeting (2013/2014). The scenario is based on a fixed annual CRF contribution (no increases).

Table 6.4.1 Current (2013/2014) Funding Model: Cash Flow Table

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2014	$344,179	$63,000	$0	$6,884	$3,640	$2,000	$408,423
2015	$408,423	$63,000	$0	$8,168	$3,800	$2,000	$473,791
2016	$473,791	$63,000	$0	$9,476	$45,000	$2,000	$499,267
2017	$499,267	$63,000	$0	$9,985	$436,800	$2,000	$133,452
2018	$133,452	$63,000	$0	$2,669	$20,500	$2,000	$176,621
2019	$176,621	$63,000	$0	$3,532	$113,400	$2,000	$127,754
2020	$127,754	$63,000	$0	$2,555	$95,300	$2,000	$96,009
2021	$96,009	$63,000	$0	$1,920	$68,000	$2,000	$90,929
2022	$90,929	$63,000	$249,953	$1,819	$383,700	$2,000	$20,000
2023	$20,000	$63,000	$0	$400	$5,100	$2,000	$76,300

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.

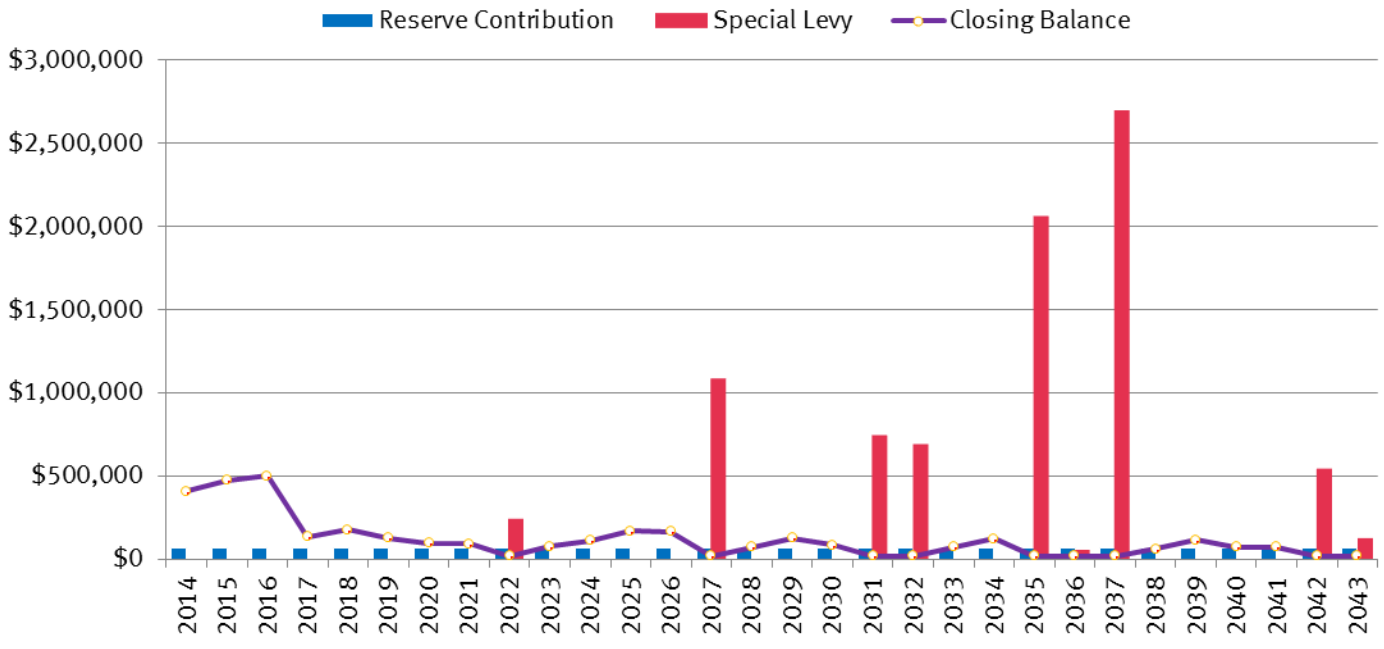

Fig. 6.4.1 CRF balance, contribution and special levies based on the current budget

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.

6.5. Alternative Funding Scenario # 1

Alternative funding scenario #1 is based on a fixed annual CRF contribution.

Table 6.5.1 Alternative Funding Model #1: Cash Flow Table

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2014	$344,179	$100,000	$0	$6,884	$3,640	$2,000	$445,423
2015	$445,423	$100,000	$0	$8,908	$3,800	$2,000	$548,531
2016	$548,531	$100,000	$0	$10,971	$45,000	$2,000	$612,502
2017	$612,502	$100,000	$0	$12,250	$436,800	$2,000	$285,952
2018	$285,952	$100,000	$0	$5,719	$20,500	$2,000	$369,171
2019	$369,171	$100,000	$0	$7,383	$113,400	$2,000	$361,154
2020	$361,154	$100,000	$0	$7,223	$95,300	$2,000	$371,077
2021	$371,077	$100,000	$0	$7,422	$68,000	$2,000	$408,499
2022	$408,499	$100,000	$0	$8,170	$383,700	$2,000	$130,969
2023	$130,969	$100,000	$0	$2,619	$5,100	$2,000	$226,488

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.

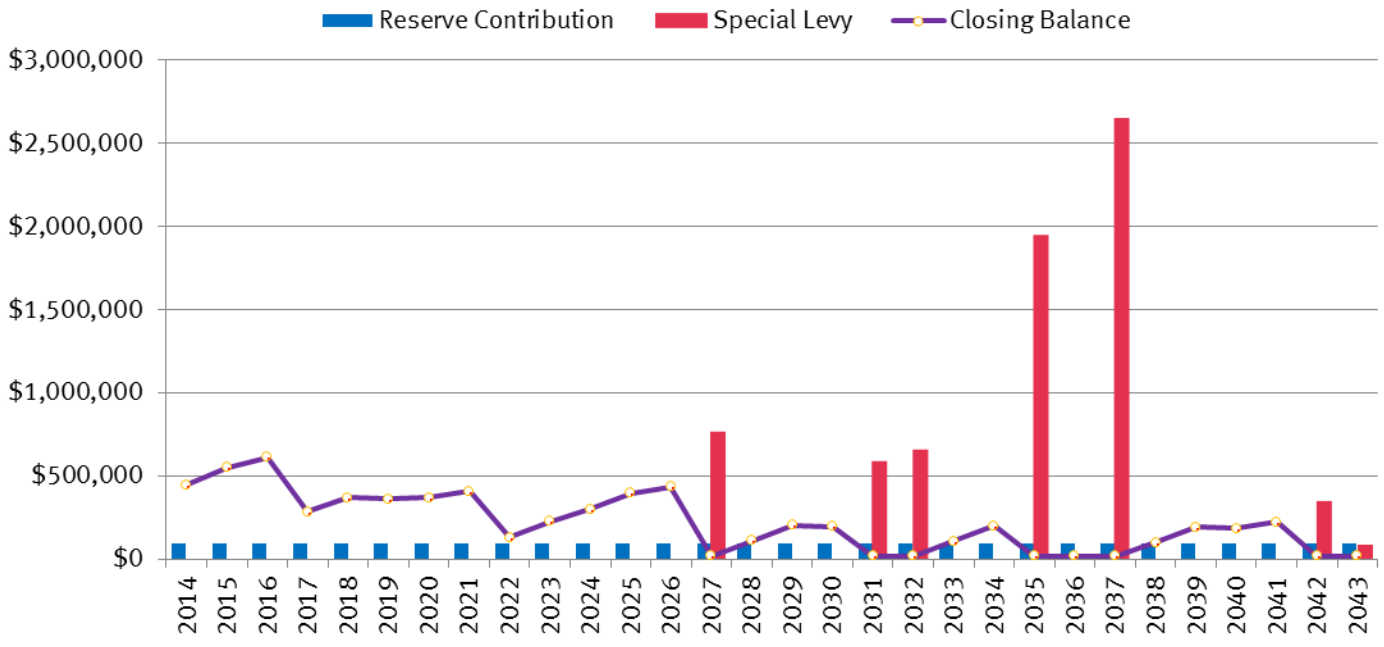

Fig. 6.5.1 CRF balance, contribution and special levies based on Alternative #1

Alternative #1 would reduce the number of special levies forecast over the next fifteen years.

6.6. Progressive Funding Scenario

The progressive funding scenario is based on a fixed annual CRF contribution.

Table 6.6.1 Progressive Funding Model: Cash Flow Table

Fiscal Year	Opening Balance	Reserve Contribution	Special Levy	Reserve Income	Renewal Costs	Contingency Costs	Closing Balance
2014	$344,179	$335,000	$0	$6,884	$3,640	$2,000	$680,423
2015	$680,423	$335,000	$0	$13,608	$3,800	$2,000	$1,023,231
2016	$1,023,231	$335,000	$0	$20,465	$45,000	$2,000	$1,331,696
2017	$1,331,696	$335,000	$0	$26,634	$436,800	$2,000	$1,254,530
2018	$1,254,530	$335,000	$0	$25,091	$20,500	$2,000	$1,592,120
2019	$1,592,120	$335,000	$0	$31,842	$113,400	$2,000	$1,843,563
2020	$1,843,563	$335,000	$0	$36,871	$95,300	$2,000	$2,118,134
2021	$2,118,134	$335,000	$0	$42,363	$68,000	$2,000	$2,425,497
2022	$2,425,497	$335,000	$0	$48,510	$383,700	$2,000	$2,423,307
2023	$2,423,307	$335,000	$0	$48,466	$5,100	$2,000	$2,799,673

The Progressive Reserve would eliminate all 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.

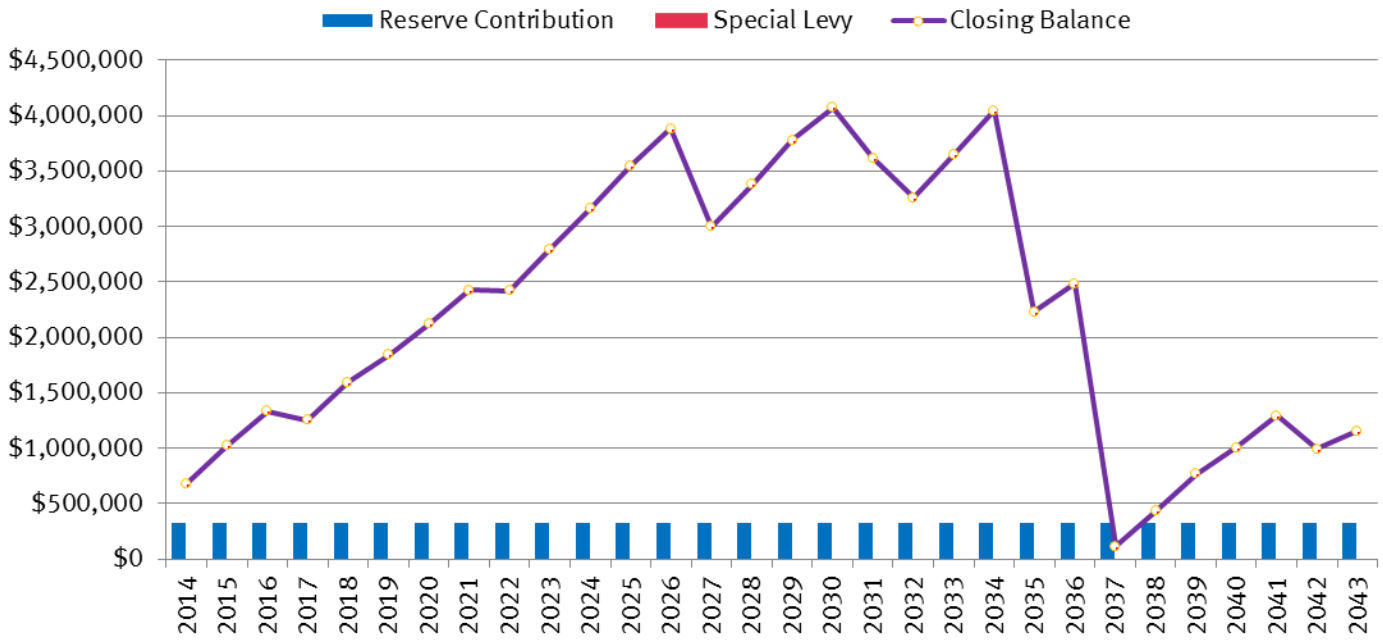

Fig. 6.6.1 CRF balance, contribution and special levies based on a Progressive Reserve calculation.

7. Next Steps

The Depreciation Report identifies the predictable major maintenance and renewal expenditures The Bentley is likely to 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 Bentley is a 7 year old Strata Corporation, and several assets such as sealant and balcony membranes may potentially require renewal in the next 10 years. However, a majority of the costs forecast relate to major maintenance of the assets, such as the re-coating of the concrete walls. The Strata should continue to be diligent in performing maintenance tasks so assets may achieve their full service life.

As a relatively young Strata Corporation, The Bentley has an opportunity to build up a strong contingency reserve fund over the coming years. By saving early for anticipated large expenditures, the Strata Corporation will benefit from accrued interest and financial preparedness, while minimizing the amount of special levies.

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

Recommendations

- **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.
- **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.

Sincerely,

RDH Building Engineering Ltd.

Jesus De Mesa, Dipl.T

Building Asset Management Technologist

Jason Dunn, B.Arch.Sc.

Project Manager

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.

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.)

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

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.

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 - The amount of money that is allocated to the Reserve Fund each fiscal year. Determining the appropriate size of the Reserve Contribution is aided with a Reserve Fund Study (Depreciation Report in B.C.).

Reserve Fund – Also known as the Contingency Reserve Fund. 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.

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.

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

Bentley, The - BCS2176

Enclosure

Roofs & Decks

Encl 01 - Protected Membrane Roof with Ballast

Location

Upper and lower roof levels.

Description

Protected membrane overlaid with insulation and stone ballast.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Encl 02 - Protected Membrane Deck with Traffic-Bearing Surface

Location

Decks.

Description

Protected membrane overlaid with (paver, deck boards, etc) as traffic-bearing surface.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Encl 03 - Protected Membrane Podium with Landscaping

Location

Courtyard above the parkade.

Description

Protected membrane overlaid with combination of drainage mat, pavers and/or (intensive or extensive) landscaping overburden.

Information

Service Life:	30	Install Year:	2007
Chronological Age:	7	Next Event Year:	2037
Effective Age:	7		

Fall Protection

Encl 04 - Anchor Fall Protection Equipment

Location

Upper and lower roof levels.

Description

Safety anchoring system for work on exterior walls and roofs.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

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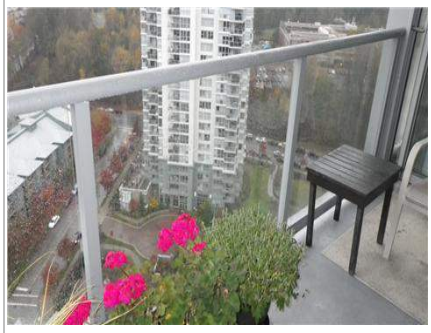
Encl 05 - Guardrail Glazed Aluminum



Location

Deck and balcony perimeters.

Description

Aluminum posts and glass infill panels functioning as a protective barrier at the open sides of balconies, and decks to prevent accidental falls from one level to another. The renewal of guardrails is typically bundled with the re-application of balcony membranes. The next event year and effective age has been adjusted to be bundled accordingly.

Information

Service Life:	30	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	12		

Walls

Encl 06 - Coated Architectural Concrete Wall

Location

All levels and elevations.

Description

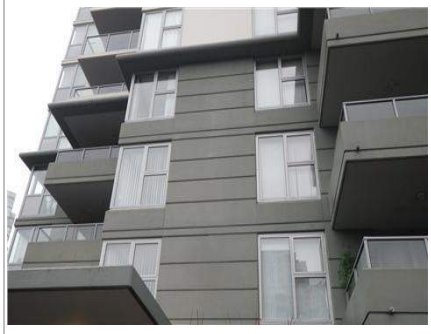
Poured-in-place architectural concrete wall with protective coating.

Information

Service Life:	75	Install Year:	2007
Chronological Age:	7	Next Event Year:	2082
Effective Age:	7		

Glazing Systems

Encl 07 - Aluminum Framed Window



Location

All levels and elevations.

Description

Aluminum framed, thermally broken windows with double insulating glazing units, and casement operators. Windows are arranged in either to three configurations - punched window, strip windows or window-wall all based on the same window system.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

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Doors

Encl 08 - Aluminum Frame Glazed Swing Door

Location

Amenity room and patios.

Description

Aluminum frame swing door with insulating glazing units.

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

Encl 09 - Aluminum Frame Lobby Door

Location

Lobby entrance.

Description

Outswing aluminum-framed doors with fixed IGU's and low-profile thresholds with electric strike and hardware.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Encl 10 - Aluminum Framed Sliding Door

Location

Decks and balconies.

Description

Sliding glass doors, double insulating glazing units, aluminum framing.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

Encl 11 - Metal Clad Swing Door

Location

Emergency exits.

Description

Metal clad wood swing door without insulating glazing units.

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

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Balconies

Encl 12 - Exposed Urethane Balcony Membrane

Location

Balcony surfaces.

Description

Liquid applied urethane membrane applied over concrete balcony.

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

Parking Garage

Encl 13 - Open-grid Overhead Parkade Gate

Location

Visitor and residential parkade entrances.

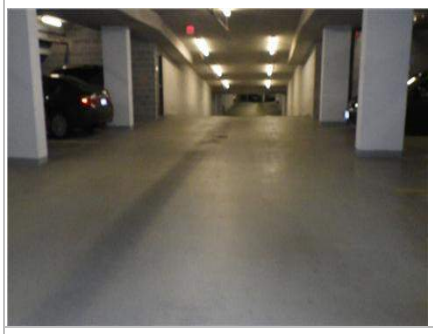
Description

Pre-finished metal grid overhead gate for underground parkade.

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

Encl 14 - Parking Slab with Traffic-bearing Membrane



Location

Parkade levels P1-P2.

Description

Traffic-bearing membrane on concrete parking garage suspended slabs.

Information

Service Life:	75	Install Year:	2007
Chronological Age:	7	Next Event Year:	2082
Effective Age:	7		

Encl 15 - Slab-on-Grade

Location

Parkade level P3.

Description

Concrete slab on grade.

Information

Service Life:	75	Install Year:	2007
Chronological Age:	7	Next Event Year:	2082
Effective Age:	7		

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General & Inspections

Encl 16 - General & Inspections

Location

All levels and elevations.

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	Install Year:	2007
Chronological Age:	7	Next Event Year:	2082
Effective Age:	7		

Encl 17 - Sealant

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	Install Year:	2007
Chronological Age:	7	Next Event Year:	2017
Effective Age:	7		

Electrical

Power Supply

Elec 01 - Distribution Transformer - Exterior [PLACEHOLDER]

Location

By roundabout.

Description

Pad mounted, KVA transformers. [Equipment is owned by BC Hydro].

Information

Service Life:	45	Install Year:	2007
Chronological Age:	7	Next Event Year:	2052
Effective Age:	7		

Elec 02 - Distribution Transformer - Interior

Location

Rooftop mechanical room and electrical rooms on P1.

Description

Square D, 15-750 KVA, 3 phase, dry-type, with Nema enclosure, coil and vibration isolators that provide power to receptacles and low voltage loads.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

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Elec 03 - Emergency Generator

Location

Emergency generator room on parkade level P1.

Description

Katolight, 250 KW, 312 KVA, 3 phase, 347/600 V, 1900 rpm, AC/DC generator with fuel tank to provide standby/emergency power.

Information

Service Life:	35	Install Year:	2007
Chronological Age:	7	Next Event Year:	2042
Effective Age:	7		

Elec 04 - Unit Substation

Location

Main electrical room on parkade level P1.

Description

Square D, 1600 A/600V, 3 phase, dry type transformer; main breaker, load break switches and metering compartments contained within unit substation to provide primary electrical service.

Information

Service Life:	35	Install Year:	2007
Chronological Age:	7	Next Event Year:	2042
Effective Age:	7		

Distribution

Elec 05 - Electrical Distribution

Location

Electrical room on parkade level P1 and electrical closets in hallways.

Description

Square D, 1600 A/600V, 3 phase switchgear unit downstream switchboards, panelboards, breakers, switches, disconnects and wiring to mechanical, lighting and power loads throughout the building [and to individual suites through BC Hydro owned metering devices].

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

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Light Fixtures

Elec 06 - Exterior Light Fixtures

Location

Balconies, decks, and various other locations throughout the site.

Description

A variety of fixture types, including wall, post mounted, street, pathway and recessed soffit pot lighting. A variety of lamp types, for exterior direct, indirect and accent lighting applications. A variety of light fixture controls, including switches.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Elec 07 - Interior Light Fixtures

Location

Throughout the common areas.

Description

A variety of fixture types, including fixed surface (pendant, track and sconce) and recessed (pot, troffer and cove). A variety of lamp types, for interior direct, indirect and accent lighting applications. A variety of light fixture controls, including switches.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Security

Elec 08 - Enterphone System

Location

Lobby and parkade entrance.

Description

Select Engineering Systems, surface mounted, enterphone panels with associated key pads and display panels.

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

Bentley, The - BCS2176

Elec 09 - Proximity Access Control

Location

Access to common areas.

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	Install Year:	2007
Chronological Age:	7	Next Event Year:	2019
Effective Age:	7		

Elec 10 - Security Surveillance

Location

Various common areas.

Description

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

Information

Service Life:	14	Install Year:	2007
Chronological Age:	7	Next Event Year:	2021
Effective Age:	7		

Mechanical

Controls and End Devices

Mech 01 - Meters - Water

Location

Water entry room on parkade level P3.

Description

Domestic water meters for measuring water consumption.

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

Mech 02 - Controls - Boiler Electronic

Location

Rooftop mechanical room.

Description

Tekmar electronic control panel to optimize boiler operation and efficiency.

Information

Service Life:	15	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	7		

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Mech 03 - Heat Tracing - Freeze Protection

Location

Throughout the parkade.

Description

Heat trace controller for piping systems exposed to freezing (self regulating heater cable with parallel circuit heater strip and outer thermoplastic elastomer jacket); UL listed for pipe freeze protection on fire sprinkler system.

Information

Service Life:	15	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	7		

Mech 04 - Controls - Electronic Actuators

Location

Electrical room.

Description

Electronic motor-driven control devices on valves, dampers etc to control heating, air-conditioning, domestic hot water system and boilers etc.

Information

Service Life:	10	Install Year:	2007
Chronological Age:	7	Next Event Year:	2017
Effective Age:	7		

Mech 05 - Controls - HVAC Instrumentation

Location

Lobby, amenity rooms, and service rooms.

Description

BC Dimplex 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	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Mech 06 - Gas Detection - Parking Garage

Location

Throughout the parking garage.

Description

QEL, QAS-20217B-1600000 electronic sensing devices for detection of dangerous gases, carbon monoxide (CO) and propane (C3H8), produced by vehicles and to activate the exhaust fans accordingly.

Information

Service Life:	10	Install Year:	2007
Chronological Age:	7	Next Event Year:	2017
Effective Age:	7		

Bentley, The - BCS2176

Plumbing & Drainage

Mech 07 - Tankless Instantaneous Heater - DHW - Electric

Location

Mechanical shafts on levels 7 and 14.

Description

Electric tankless DHW heater, for point-of-use or recirculation water heating.

Information

Service Life:	10	Install Year:	2007
Chronological Age:	7	Next Event Year:	2017
Effective Age:	7		

Mech 08 - Drainage - Sanitary

Location

Connected to waste fixtures throughout.

Description

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

Information

Service Life:	50	Install Year:	2007
Chronological Age:	7	Next Event Year:	2057
Effective Age:	7		

Mech 09 - Fixtures - Taps & Sinks

Location

Amenity kitchen and washroom.

Description

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

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

Mech 10 - Fixtures - Toilets

Location

Amenity washroom.

Description

Toto, 6.0 LPF, floor mounted toilet.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Mech 11 - Pump - DHW - Circulation and Recirculation

Location

Water entry room on parkade level P3 and rooftop mechanical room.

Description

Armstrong, fractional 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	Install Year:	2007
Chronological Age:	7	Next Event Year:	2017
Effective Age:	7		

Mech 12 - Pumps - Storm Lift and Control Panel

Location

Parkade level P3.

Description

Northwest Tech-con, Simplex and Duplex, 0.5-3.0 HP, storm sump pumps and control panels for storm water runoff and sub-surface drainage.

Information

Service Life:	15	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	7		

Mech 13 - Tank - DHW - Storage

Location

Rooftop mechanical room.

Description

A.O. Smith, 200 gallon tanks, glass-lined hot water storage tanks connected to domestic boiler system.

Information

Service Life:	8	Install Year:	2007
Chronological Age:	7	Next Event Year:	2016
Effective Age:	6		

Mech 14 - Piping - Domestic Water Distribution

Location

Connected to supply fixtures throughout.

Description

Mixture of insulated ductile iron, type K and L copper for vertical/horizontal mains system and PEX piping within the suites.

Information

Service Life:	28	Install Year:	2007
Chronological Age:	7	Next Event Year:	2035
Effective Age:	7		

Mech 15 - Piping - Gas Distribution

Location

Rooftop mechanical room.

Description

Gas distribution system consisting of piping from meter to appliance.

Information

Service Life:	50	Install Year:	2007
Chronological Age:	7	Next Event Year:	2057
Effective Age:	7		

Mech 16 - Pump - Domestic Water Booster

Location

Water entry room on parkade level P3.

Description

Tornatech triplex system with 3 HP lead pump, 5 HP lag pumps, packaged 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 would benefit from the retrofit of VSD control to provide energy savings.

Information

Service Life:	14	Install Year:	2007
Chronological Age:	7	Next Event Year:	2021
Effective Age:	7		

Mech 17 - Tank - DHW - Heating - Gas Fired

Location

Rooftop mechanical room.

Description

A.O. Smith, 520,000 BTU/hr input, 429,000 BTU/hr output, natural gas fired domestic water heaters, model HW-520, for domestic hot water for plumbing fixtures in the suites.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Mech 18 - Tank - Expansion -DHW - Diaphragm

Location

Rooftop mechanical room.

Description

Amtrol, floor mounted diaphragm expansion tank for domestic water system.

Information

Service Life:	20	Install Year:	2012
Chronological Age:	2	Next Event Year:	2032
Effective Age:	2		

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Mech 19 - Valves - Cross Connection & Backflow Prevention

Location

Water entry room on parkade level P3.

Description

Various types and sizes of backflow prevention valves, including vacuum breakers, double check, reduced pressure valves on systems.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Mech 20 - Valves - Plumbing Flow Control and Directional

Location

Water entry room on parkade level P3 and Residential 14th floors service space.

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 and Residential 14th floors service space.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Heating & Cooling

Mech 21 - Baseboard - Electric

Location

Lobby, amenity rooms, and service rooms.

Description

Standard grade, wall mounted, electric convector baseboard heaters with electrical fins for localized space heating and integral thermostat control.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

Ventilation and Air-conditioning

Mech 22 - Coil - Electric - Duct Heater

Location

Throughout the parkade.

Description

Electric duct heaters, duct-mounted with elements, and controller. Generic photo is shown.

Information

Service Life:	17	Install Year:	2007
Chronological Age:	7	Next Event Year:	2024
Effective Age:	7		

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Mech 23 - Exhaust Fan - Parkade - Propellor

Location

Throughout the parkade.

Description

Cook, 1.5 hp, belt driven propellor exhaust fan mounted in exterior wall.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Mech 24 - Exhaust Fan - Small Service - Cabinet

Location

Service, storage and amenity room.

Description

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

Information

Service Life:	12	Install Year:	2007
Chronological Age:	7	Next Event Year:	2019
Effective Age:	7		

Mech 25 - Indoor Air Handler - Gas Fired

Location

Rooftop mechanical room.

Description

Engineered Air, Model DJ100, 7600 CFM indoor unit, 700,000 Max BTUH input, 567,000 Max BTUH output, belt-driven, centrifugal fan with natural gas fired heating to supply tempered make-up air to the interior spaces.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Other

Mech 26 - Overhead Gate Motor

Location

Visitor and residential parkade entrances.

Description

Elite, 1/2 HP AC motor and commercial-grade overhead sectional door controlled by an electric operator.

Information

Service Life:	20	Install Year:	2012
Chronological Age:	2	Next Event Year:	2032
Effective Age:	2		

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Elevator

Traction

Elev 01 - Traction Elevators, Overhead Geared

Location

Elevator machine room at roof level.

Description

ThyssenKrupp geared overhead traction passenger elevators with TC-3200 microprocessor controls, Quantum Quiet (VVVF AC) drives, TW160 geared machines, 2100/2500 lbs, 400 fpm contract speed.

Information

Service Life:	30	Install Year:	2007
Chronological Age:	7	Next Event Year:	2037
Effective Age:	7		

Car Interiors

Elev 02 - Elevator Cabs & Hoistway

Location

Elevator cab and travelling hoistway.

Description

Single speed, side opening doors, plastic car and hall pushbuttons, one (1) car operating panel (stainless steel), infrared door protection, ECI-1000 door operators, stainless steel doors and front return, mirror with stainless steel reveals on all non-access walls, egg crate ceiling, tile flooring, firefighter's emergency operation, standby power provisions, hands-free voice communication devices, seismic provisions.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Fire Safety

Controls

Fire 01 - Fire Alarm Panel - Addressable

Location

Lobby.

Description

EST microprocessor and supervised unit with annunciator and LED display.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

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Detection

Fire 02 - Fire Detection & Alarm

Location

Throughout common areas.

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	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Suppression

Fire 03 - Fire Hydrant

Location

By roundabout.

Description

Devices used to access water directly from the municipal water supply by fire department, to assist in extinguishing fires.This may be municipally owned if on property perimeter.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

Fire 04 - Dry Sprinkler Compressor

Location

Sprinkler room on parkade level P3.

Description

General Air compressor with fractional HP motor to maintain the pressure of air in the dry fire sprinkler lines.

Information

Service Life:	14	Install Year:	2007
Chronological Age:	7	Next Event Year:	2021
Effective Age:	7		

Fire 05 - Fire & Jockey Pump

Location

Sprinkler room on parkade level P3.

Description

Motor control centre connected to 60 HP fire pump and 2 HP jockey pump, which work in tandem to supply water flow and pressure to the sprinkler system and standpipe system.

Information

Service Life:	30	Install Year:	2007
Chronological Age:	7	Next Event Year:	2037
Effective Age:	7		

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Fire 06 - Portable Fire Extinguisher

Location

Throughout the common areas.

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	Install Year:	2007
Chronological Age:	7	Next Event Year:	2031
Effective Age:	7		

Fire 07 - Sprinkler & Standpipe - Wet

Location

Throughout heated interior spaces.

Description

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

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

Fire 08 - Sprinkler System - Dry

Location

Throughout the parkade.

Description

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

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

Fire 09 - Sprinkler Valve Assembly - Dry

Location

Sprinkler room on parkade level P3.

Description

Fire lock dry sprinkler valves, trim and gauges, steel piping.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

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Egress

Fire 10 - Emergency Egress Equipment

Location

Throughout the common areas.

Description

Unit battery packs; LED exit signs.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Interior Finishes

Floors

Finish 01 - Floor Tile

Location

Lobby and amenity washroom and kitchen.

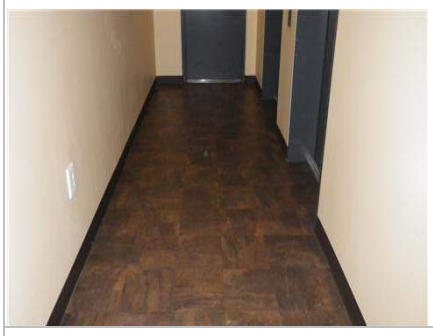
Description

Floor tile on thin set mortar with grout.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

Finish 02 - Resilient Sheet Flooring



Location

Parkade vestibules.

Description

Vinyl tile adhered to the substrate.

Information

Service Life:	25	Install Year:	2012
Chronological Age:	2	Next Event Year:	2037
Effective Age:	2		

Finish 03 - Carpet

Location

Amenity rooms, hallways, and portions of the lobby.

Description

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

Information

Service Life:	10	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	2		

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Walls

Finish 04 - Wood Paneling

Location

Lobby.

Description

Decorative wood paneling; solid or wood veneer on substrate sheathing and structural framing.

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

Finish 05 - Mirror

Location

Fitness room.

Description

Mirrored glass with structural fasteners to the substrate.

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

Finish 06 - Paint

Location

Parkade vestibules.

Description

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

Information

Service Life:	10	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	2		

Finish 07 - Wallpaper Covering

Location

Lobby, hallways, and amenity rooms.

Description

Decorative wallpaper sheet covering adhered to substrate sheathing.

Information

Service Life:	15	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	7		

Bentley, The - BCS2176

Architectural Woodwork

Finish 08 - Carpentry and Millwork

Location

Amenity kitchen.

Description

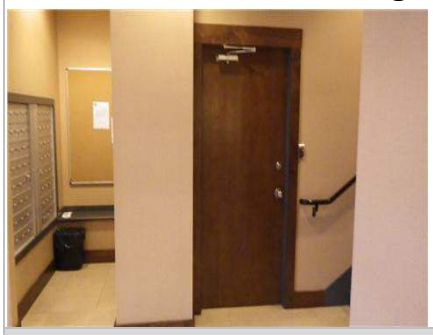
Shop fabricated custom casework, built-in counter-tops with laminate, composite or stone surface, wood veneer or composite cabinets.

Information

Service Life:	30	Install Year:	2007
Chronological Age:	7	Next Event Year:	2037
Effective Age:	7		

Doors

Finish 09 - Interior Swing Door - General



Location

Throughout the common areas.

Description

Solid or hollow core wood or hollow metal swing door hung in framed opening including hardware.

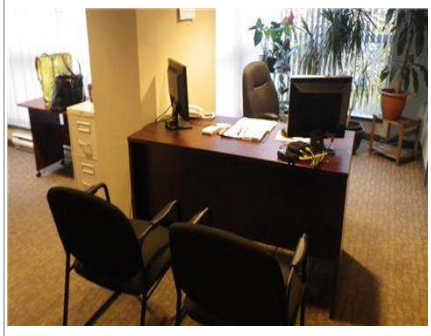
Information

Service Life:	30	Install Year:	2007
Chronological Age:	7	Next Event Year:	2037
Effective Age:	7		

Amenities

Equipment

Amen 01 - Computer Equipment



Location

Caretaker room.

Description

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

Information

Service Life:	6	Install Year:	2007
Chronological Age:	7	Next Event Year:	2014
Effective Age:	6		

Amen 02 - Domestic Appliances

Location

Amenity room kitchen.

Description

Refrigerator, microwave oven, dishwasher of miscellaneous brands.

Information

Service Life:	15	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	7		

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Amen 03 - Fitness Equipments

Location

Fitness room.

Description

Various fitness machines and equipment; treadmill, weight machine, etc.

Information

Service Life:	15	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	7		

Specialties

Amen 04 - Wood Storage Locker

Location

Storage rooms.

Description

Wood framed general purpose storage locker with swing door and hardware.

Information

Service Life:	30	Install Year:	2007
Chronological Age:	7	Next Event Year:	2037
Effective Age:	7		

Furnishings

Amen 05 - Pool Table

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	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

Amen 06 - Central Mailboxes

Location

Lobby.

Description

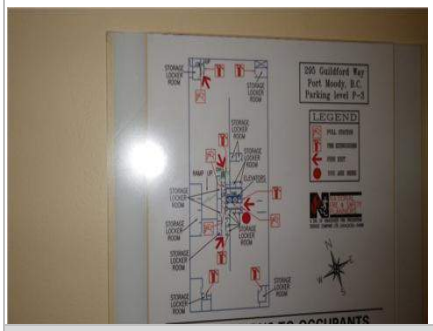
Flush mounted, front loading, brushed aluminum finish, extruded aluminum trim.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

Bentley, The - BCS2176

Amen 07 - Public Signage



Location

Throughout the common areas.

Description

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

Information

Service Life:	25	Install Year:	2007
Chronological Age:	7	Next Event Year:	2032
Effective Age:	7		

Sitework

Hard Landscaping

Site 01 - Concrete Paving

Location

Walkway by courtyard.

Description

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

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

Site 02 - Interlocking Unit Paving

Location

Adjacent to lobby entrance, courtyard and decks.

Description

Precast concrete unit pavers with curbs, combination of chip seal joint filler and jointing sand, bedding sand, and onto compacted gravel base.

Information

Service Life:	40	Install Year:	2007
Chronological Age:	7	Next Event Year:	2047
Effective Age:	7		

Site 03 - Wood Trellis

Location

Courtyard and by parkade entrance.

Description

Timber framed with wood cross pieces.

Information

Service Life:	20	Install Year:	2007
Chronological Age:	7	Next Event Year:	2027
Effective Age:	7		

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Soft Landscaping

Site 04 - Irrigation System

Location

Throughout the landscaped areas. Controller in electrical room.

Description

Controller with time clock, network of pipes, valves, and irrigation heads distributed around the soft landscaping.

Information

Service Life:	15	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	7		

Site 05 - Soft Landscaping

Location

Throughout the site.

Description

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

Information

Service Life:	15	Install Year:	2007
Chronological Age:	7	Next Event Year:	2022
Effective Age:	7		

Appendix C

Asset Service Life Summary

Bentley, The - BCS2176

Asset Service Life Summary

Asset Ref	Asset Name	Chronological Age	Estimated Remaining SL
Enclosure			
Encl 01	Protected Membrane Roof with Ballast	7	13
Encl 02	Protected Membrane Deck with Traffic-Bearing Surface	7	13
Encl 03	Protected Membrane Podium with Landscaping	7	23
Encl 04	Anchor Fall Protection Equipment	7	33
Encl 05	Guardrail Glazed Aluminum	7	18
Encl 06	Coated Architectural Concrete Wall	7	68
Encl 07	Aluminum Framed Window	7	33
Encl 08	Aluminum Frame Glazed Swing Door	7	18
Encl 09	Aluminum Frame Lobby Door	7	13
Encl 10	Aluminum Framed Sliding Door	7	33
Encl 11	Metal Clad Swing Door	7	18
Encl 12	Exposed Urethane Balcony Membrane	7	18
Encl 13	Open-grid Overhead Parkade Gate	7	18
Encl 14	Parking Slab with Traffic-bearing Membrane	7	68
Encl 15	Slab-on-Grade	7	68
Encl 16	General & Inspections	7	68
Encl 17	Sealant	7	3
Electrical			
Elec 01	Distribution Transformer - Exterior [PLACEHOLDER]	7	38
Elec 02	Distribution Transformer - Interior	7	33
Elec 03	Emergency Generator	7	28
Elec 04	Unit Substation	7	28
Elec 05	Electrical Distribution	7	33
Elec 06	Exterior Light Fixtures	7	13
Elec 07	Interior Light Fixtures	7	13
Elec 08	Enterphone System	7	18
Elec 09	Proximity Access Control	7	5
Elec 10	Security Surveillance	7	7
Mechanical			
Mech 01	Meters - Water	7	18
Mech 02	Controls - Boiler Electronic	7	8
Mech 03	Heat Tracing - Freeze Protection	7	8
Mech 04	Controls - Electronic Actuators	7	3
Mech 05	Controls - HVAC Instrumentation	7	13

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Asset Service Life Summary

Asset Ref	Asset Name	Chronological Age	Estimated Remaining SL
Mech 06	Gas Detection - Parking Garage	7	3
Mech 07	Tankless Instantaneous Heater - DHW - Electric	7	3
Mech 08	Drainage - Sanitary	7	43
Mech 09	Fixtures - Taps & Sinks	7	18
Mech 10	Fixtures - Toilets	7	13
Mech 11	Pump - DHW - Circulation and Recirculation	7	3
Mech 12	Pumps - Storm Lift and Control Panel	7	8
Mech 13	Tank - DHW - Storage	7	2
Mech 14	Piping - Domestic Water Distribution	7	21
Mech 15	Piping - Gas Distribution	7	43
Mech 16	Pump - Domestic Water Booster	7	7
Mech 17	Tank - DHW - Heating - Gas Fired	7	13
Mech 18	Tank - Expansion -DHW - Diaphragm	2	18
Mech 19	Valves - Cross Connection & Backflow Prevention	7	13
Mech 20	Valves - Plumbing Flow Control and Directional	7	13
Mech 21	Baseboard - Electric	7	33
Mech 22	Coil - Electric - Duct Heater	7	10
Mech 23	Exhaust Fan - Parkade - Propellor	7	13
Mech 24	Exhaust Fan - Small Service - Cabinet	7	5
Mech 25	Indoor Air Handler - Gas Fired	7	13
Mech 26	Overhead Gate Motor	2	18
Elevator			
Elev 01	Traction Elevators, Overhead Geared	7	23
Elev 02	Elevator Cabs & Hoistway	7	13
Fire Safety			
Fire 01	Fire Alarm Panel - Addressable	7	13
Fire 02	Fire Detection & Alarm	7	13
Fire 03	Fire Hydrant	7	33
Fire 04	Dry Sprinkler Compressor	7	7
Fire 05	Fire & Jockey Pump	7	23
Fire 06	Portable Fire Extinguisher	7	17
Fire 07	Sprinkler & Standpipe - Wet	7	33
Fire 08	Sprinkler System - Dry	7	33
Fire 09	Sprinkler Valve Assembly - Dry	7	33
Fire 10	Emergency Egress Equipment	7	13

Bentley, The - BCS2176

Asset Service Life Summary

Asset Ref	Asset Name	Chronological Age	Estimated Remaining SL
Interior Finishes			
Finish 01	Floor Tile	7	33
Finish 02	Resilient Sheet Flooring	2	23
Finish 03	Carpet	7	8
Finish 04	Wood Paneling	7	18
Finish 05	Mirror	7	18
Finish 06	Paint	7	8
Finish 07	Wallpaper Covering	7	8
Finish 08	Carpentry and Millwork	7	23
Finish 09	Interior Swing Door - General	7	23
Amenities			
Amen 01	Computer Equipment	7	0
Amen 02	Domestic Appliances	7	8
Amen 03	Fitness Equipments	7	8
Amen 04	Wood Storage Locker	7	23
Amen 05	Pool Table	7	13
Amen 06	Central Mailboxes	7	33
Amen 07	Public Signage	7	18
Sitework			
Site 01	Concrete Paving	7	33
Site 02	Interlocking Unit Paving	7	33
Site 03	Wood Trellis	7	13
Site 04	Irrigation System	7	8
Site 05	Soft Landscaping	7	8

Appendix D

Disclosures and Disclaimers

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VAN@RDHBE.COM WWW.RDHBE.COM

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 regarded 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 E

Funding Scenario Cash Flow Tables

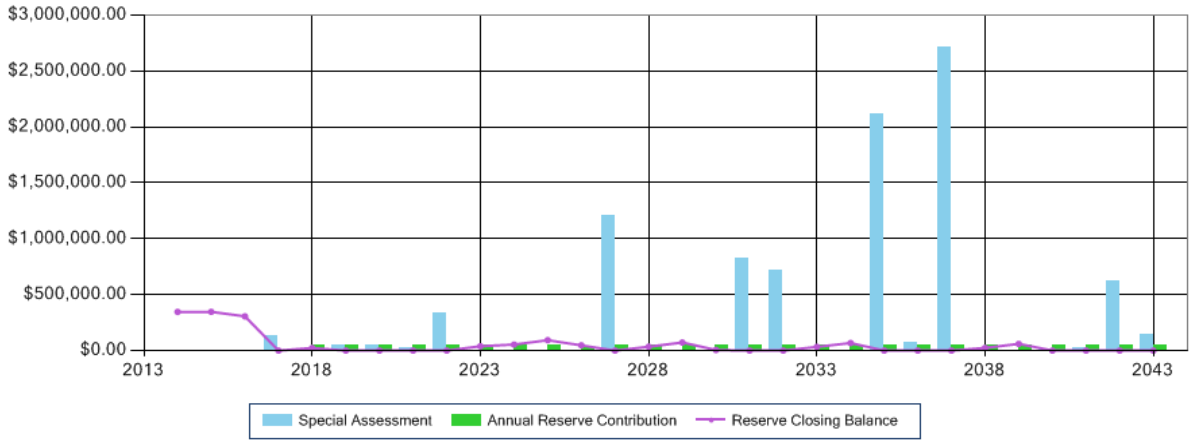
Statutory Funding Model

Funding Model Name	Statutory	Initial Catchup Cost	$0
Building	Bentley, The - BCS2176	Operating Budget	$457,274
Start Year	2014	Starting Reserve Balance	$344,179
Interest/Investment Rate	2.0	Contribution Threshold	$114,319
Estimated Contingency Allowance	$2,000	Contribution Below Threshold	$45,727
Tax Rate	0.0	Contribution Above Threshold	$0
Planning Horizon	30	Reserve Contribution Increase	0.0
Number of Units	137	Monthly Avg. Unit Contribution	$0

Year	Opening Balance	Reserve Contribution	Special Assessment	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2014	$344,179	$0	$0	$6,884	$3,640	$2,000	$0	$345,423	20.20 %
2015	$345,423	$0	$0	$6,908	$3,800	$2,000	$0	$346,531	17.22 %
2016	$346,531	$0	$0	$6,931	$45,000	$2,000	$0	$306,462	13.41 %
2017	$306,462	$0	$126,209	$6,129	$436,800	$2,000	$0	$0	0.00 %
2018	$0	$45,727	$0	$0	$20,500	$2,000	$0	$23,227	0.93 %
2019	$23,227	$45,727	$45,981	$465	$113,400	$2,000	$0	$0	0.00 %
2020	$0	$45,727	$51,573	$0	$95,300	$2,000	$0	$0	0.00 %
2021	$0	$45,727	$24,273	$0	$68,000	$2,000	$0	$0	0.00 %
2022	$0	$45,727	$339,973	$0	$383,700	$2,000	$0	$0	0.00 %
2023	$0	$45,727	$0	$0	$5,100	$2,000	$0	$38,627	1.06 %
2024	$38,627	$45,727	$0	$773	$29,160	$2,000	$0	$53,967	1.34 %
2025	$53,967	$45,727	$0	$1,079	$5,900	$2,000	$0	$92,874	2.10 %
2026	$92,874	$21,444	$0	$1,857	$67,600	$2,000	$0	$46,576	0.97 %
2027	$46,576	$45,727	$1,206,565	$932	$1,297,800	$2,000	$0	$0	0.00 %
2028	$0	$45,727	$0	$0	$9,300	$2,000	$0	$34,427	0.81 %
2029	$34,427	$45,727	$0	$689	$6,330	$2,000	$0	$72,513	1.57 %
2030	$72,513	$41,805	$0	$1,450	$108,700	$2,000	$0	$5,069	0.10 %
2031	$5,069	$45,727	$827,302	$101	$876,200	$2,000	$0	$0	0.00 %
2032	$0	$45,727	$716,373	$0	$760,100	$2,000	$0	$0	0.00 %
2033	$0	$45,727	$0	$0	$10,700	$2,000	$0	$33,027	0.73 %
2034	$33,027	$45,727	$0	$661	$10,010	$2,000	$0	$67,405	1.37 %
2035	$67,405	$45,727	$2,115,919	$1,348	$2,228,400	$2,000	$0	$0	0.00 %
2036	$0	$45,727	$76,673	$0	$120,400	$2,000	$0	$0	0.00 %
2037	$0	$45,727	$2,709,373	$0	$2,753,100	$2,000	$0	$0	0.00 %
2038	$0	$45,727	$0	$0	$20,100	$2,000	$0	$23,627	3.31 %
2039	$23,627	$45,727	$0	$473	$7,890	$2,000	$0	$59,937	7.45 %
2040	$59,937	$45,727	$2,737	$1,199	$107,600	$2,000	$0	$0	0.00 %

2041	$0	$45,727	$18,773	$0	$62,500	$2,000	$0	$0	0.00 %
2042	$0	$45,727	$618,373	$0	$662,100	$2,000	$0	$0	0.00 %
2043	$0	$45,727	$148,373	$0	$192,100	$2,000	$0	$0	100.00 %

Graphic Representation



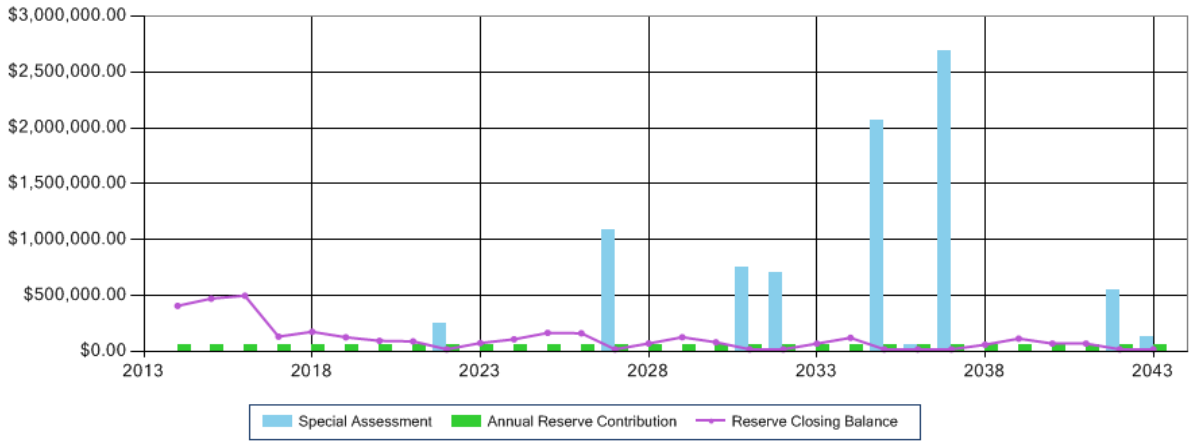
Current Funding Model

Funding Model Name	Fixed Annual Funding of $ 63,000 (Status Quo)	Initial Catchup Cost	$0
Building	Bentley, The - BCS2176	Operating Budget	$457,274
Start Year	2014	Starting Reserve Balance	$344,179
Interest/Investment Rate	2.0	Contribution Threshold	$500,000
Estimated Contingency Allowance	$2,000	Contribution Below Threshold	$63,000
Tax Rate	0.0	Contribution Above Threshold	$63,000
Planning Horizon	30	Reserve Contribution Increase	0.0
Number of Units	137	Monthly Avg. Unit Contribution	$38

Year	Opening Balance	Reserve Contribution	Special Assessment	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2014	$344,179	$63,000	$0	$6,884	$3,640	$2,000	$0	$408,423	23.88 %
2015	$408,423	$63,000	$0	$8,168	$3,800	$2,000	$0	$473,791	23.54 %
2016	$473,791	$63,000	$0	$9,476	$45,000	$2,000	$0	$499,267	21.84 %
2017	$499,267	$63,000	$0	$9,985	$436,800	$2,000	$0	$133,452	6.16 %
2018	$133,452	$63,000	$0	$2,669	$20,500	$2,000	$0	$176,621	7.11 %
2019	$176,621	$63,000	$0	$3,532	$113,400	$2,000	$0	$127,754	4.70 %
2020	$127,754	$63,000	$0	$2,555	$95,300	$2,000	$0	$96,009	3.23 %
2021	$96,009	$63,000	$0	$1,920	$68,000	$2,000	$0	$90,929	2.78 %
2022	$90,929	$63,000	$249,953	$1,819	$383,700	$2,000	$0	$20,000	0.61 %
2023	$20,000	$63,000	$0	$400	$5,100	$2,000	$0	$76,300	2.09 %
2024	$76,300	$63,000	$0	$1,526	$29,160	$2,000	$0	$109,666	2.74 %
2025	$109,666	$63,000	$0	$2,193	$5,900	$2,000	$0	$166,959	3.79 %
2026	$166,959	$63,000	$0	$3,339	$67,600	$2,000	$0	$163,699	3.43 %
2027	$163,699	$63,000	$1,089,828	$3,274	$1,297,800	$2,000	$0	$20,000	0.52 %
2028	$20,000	$63,000	$0	$400	$9,300	$2,000	$0	$72,100	1.71 %
2029	$72,100	$63,000	$0	$1,442	$6,330	$2,000	$0	$128,212	2.78 %
2030	$128,212	$63,000	$0	$2,564	$108,700	$2,000	$0	$83,076	1.69 %
2031	$83,076	$63,000	$750,462	$1,662	$876,200	$2,000	$0	$20,000	0.44 %
2032	$20,000	$63,000	$698,700	$400	$760,100	$2,000	$0	$20,000	0.48 %
2033	$20,000	$63,000	$0	$400	$10,700	$2,000	$0	$70,700	1.56 %
2034	$70,700	$63,000	$0	$1,414	$10,010	$2,000	$0	$123,104	2.51 %
2035	$123,104	$63,000	$2,061,834	$2,462	$2,228,400	$2,000	$0	$20,000	0.64 %
2036	$20,000	$63,000	$59,000	$400	$120,400	$2,000	$0	$20,000	0.61 %
2037	$20,000	$63,000	$2,691,700	$400	$2,753,100	$2,000	$0	$20,000	3.13 %
2038	$20,000	$63,000	$0	$400	$20,100	$2,000	$0	$61,300	8.59 %
2039	$61,300	$63,000	$0	$1,226	$7,890	$2,000	$0	$115,636	14.38 %

2040	$115,636	$63,000	$0	$2,313	$107,600	$2,000	$0	$71,349	9.62 %
2041	$71,349	$63,000	$0	$1,427	$62,500	$2,000	$0	$71,276	9.30 %
2042	$71,276	$63,000	$548,399	$1,426	$662,100	$2,000	$0	$20,000	11.49 %
2043	$20,000	$63,000	$130,700	$400	$192,100	$2,000	$0	$20,000	100.00 %

Graphic Representation



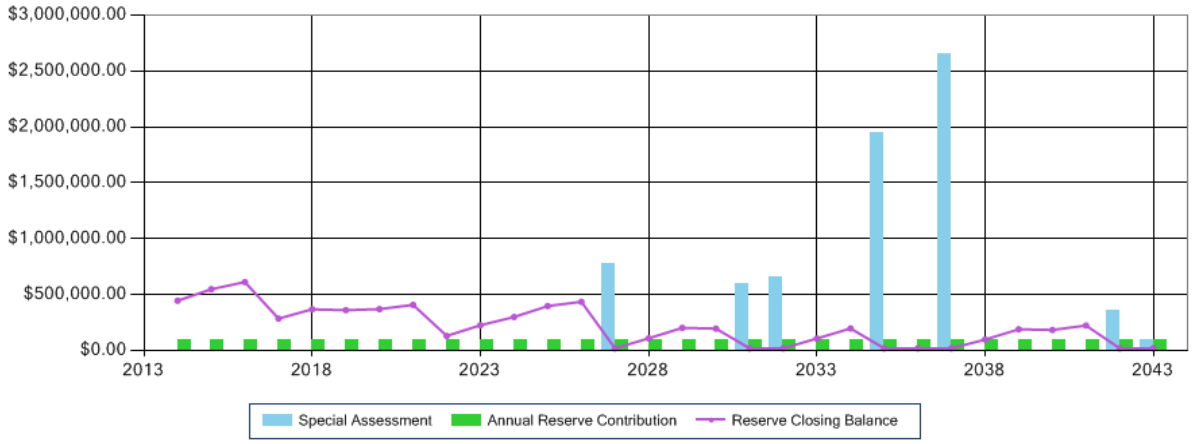
Alternative #1 Funding Model

Funding Model Name	Fixed Annual Funding of $100,000	Initial Catchup Cost	$0
Building	Bentley, The - BCS2176	Operating Budget	$457,274
Start Year	2014	Starting Reserve Balance	$344,179
Interest/Investment Rate	2.0	Contribution Threshold	$500,000
Estimated Contingency Allowance	$2,000	Contribution Below Threshold	$100,000
Tax Rate	0.0	Contribution Above Threshold	$100,000
Planning Horizon	30	Reserve Contribution Increase	0.0
Number of Units	137	Monthly Avg. Unit Contribution	$61

Year	Opening Balance	Reserve Contribution	Special Assessment	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2014	$344,179	$100,000	$0	$6,884	$3,640	$2,000	$0	$445,423	26.04 %
2015	$445,423	$100,000	$0	$8,908	$3,800	$2,000	$0	$548,531	27.26 %
2016	$548,531	$100,000	$0	$10,971	$45,000	$2,000	$0	$612,502	26.80 %
2017	$612,502	$100,000	$0	$12,250	$436,800	$2,000	$0	$285,952	13.20 %
2018	$285,952	$100,000	$0	$5,719	$20,500	$2,000	$0	$369,171	14.87 %
2019	$369,171	$100,000	$0	$7,383	$113,400	$2,000	$0	$361,154	13.30 %
2020	$361,154	$100,000	$0	$7,223	$95,300	$2,000	$0	$371,077	12.51 %
2021	$371,077	$100,000	$0	$7,422	$68,000	$2,000	$0	$408,499	12.49 %
2022	$408,499	$100,000	$0	$8,170	$383,700	$2,000	$0	$130,969	4.01 %
2023	$130,969	$100,000	$0	$2,619	$5,100	$2,000	$0	$226,488	6.23 %
2024	$226,488	$100,000	$0	$4,530	$29,160	$2,000	$0	$299,858	7.49 %
2025	$299,858	$100,000	$0	$5,997	$5,900	$2,000	$0	$397,955	9.03 %
2026	$397,955	$100,000	$0	$7,959	$67,600	$2,000	$0	$436,314	9.15 %
2027	$436,314	$100,000	$774,760	$8,726	$1,297,800	$2,000	$0	$20,000	0.52 %
2028	$20,000	$100,000	$0	$400	$9,300	$2,000	$0	$109,100	2.58 %
2029	$109,100	$100,000	$0	$2,182	$6,330	$2,000	$0	$202,952	4.40 %
2030	$202,952	$100,000	$0	$4,059	$108,700	$2,000	$0	$196,311	4.01 %
2031	$196,311	$100,000	$597,963	$3,926	$876,200	$2,000	$0	$20,000	0.44 %
2032	$20,000	$100,000	$661,700	$400	$760,100	$2,000	$0	$20,000	0.48 %
2033	$20,000	$100,000	$0	$400	$10,700	$2,000	$0	$107,700	2.38 %
2034	$107,700	$100,000	$0	$2,154	$10,010	$2,000	$0	$197,844	4.03 %
2035	$197,844	$100,000	$1,948,599	$3,957	$2,228,400	$2,000	$0	$20,000	0.64 %
2036	$20,000	$100,000	$22,000	$400	$120,400	$2,000	$0	$20,000	0.61 %
2037	$20,000	$100,000	$2,654,700	$400	$2,753,100	$2,000	$0	$20,000	3.13 %
2038	$20,000	$100,000	$0	$400	$20,100	$2,000	$0	$98,300	13.78 %
2039	$98,300	$100,000	$0	$1,966	$7,890	$2,000	$0	$190,376	23.67 %
2040	$190,376	$100,000	$0	$3,808	$107,600	$2,000	$0	$184,584	24.91 %

2041	$184,584	$100,000	$0	$3,692	$62,500	$2,000	$0	$223,775	29.21 %
2042	$223,775	$100,000	$355,849	$4,476	$662,100	$2,000	$0	$20,000	11.49 %
2043	$20,000	$100,000	$93,700	$400	$192,100	$2,000	$0	$20,000	100.00 %

Graphic Representation



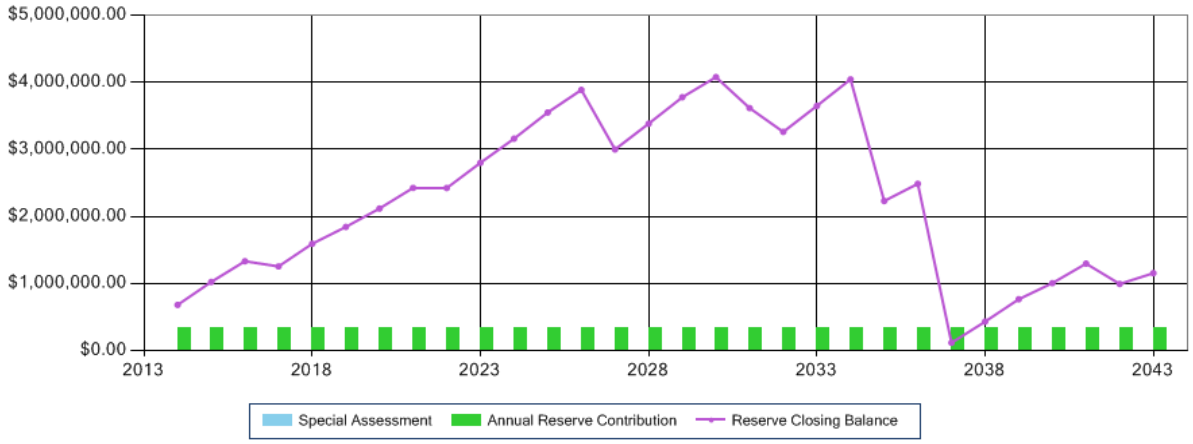
Progressive Funding Model

Funding Model Name	Fixed Annual Funding of $335,000	Initial Catchup Cost	$0
Building	Bentley, The - BCS2176	Operating Budget	$457,274
Start Year	2014	Starting Reserve Balance	$344,179
Interest/Investment Rate	2.0	Contribution Threshold	$500,000
Estimated Contingency Allowance	$2,000	Contribution Below Threshold	$335,000
Tax Rate	0.0	Contribution Above Threshold	$335,000
Planning Horizon	30	Reserve Contribution Increase	0.0
Number of Units	137	Monthly Avg. Unit Contribution	$204

Year	Opening Balance	Reserve Contribution	Special Assessment	Reserve Income	Renewal Costs	Contingency Costs	Tax Liability	Closing Balance	Percent Funded
2014	$344,179	$335,000	$0	$6,884	$3,640	$2,000	$0	$680,423	39.79 %
2015	$680,423	$335,000	$0	$13,608	$3,800	$2,000	$0	$1,023,231	50.85 %
2016	$1,023,231	$335,000	$0	$20,465	$45,000	$2,000	$0	$1,331,696	58.27 %
2017	$1,331,696	$335,000	$0	$26,634	$436,800	$2,000	$0	$1,254,530	57.91 %
2018	$1,254,530	$335,000	$0	$25,091	$20,500	$2,000	$0	$1,592,120	64.14 %
2019	$1,592,120	$335,000	$0	$31,842	$113,400	$2,000	$0	$1,843,563	67.92 %
2020	$1,843,563	$335,000	$0	$36,871	$95,300	$2,000	$0	$2,118,134	71.41 %
2021	$2,118,134	$335,000	$0	$42,363	$68,000	$2,000	$0	$2,425,497	74.17 %
2022	$2,425,497	$335,000	$0	$48,510	$383,700	$2,000	$0	$2,423,307	74.35 %
2023	$2,423,307	$335,000	$0	$48,466	$5,100	$2,000	$0	$2,799,673	77.01 %
2024	$2,799,673	$335,000	$0	$55,993	$29,160	$2,000	$0	$3,159,506	78.96 %
2025	$3,159,506	$335,000	$0	$63,190	$5,900	$2,000	$0	$3,549,797	80.62 %
2026	$3,549,797	$335,000	$0	$70,996	$67,600	$2,000	$0	$3,886,193	81.53 %
2027	$3,886,193	$335,000	$0	$77,724	$1,297,800	$2,000	$0	$2,999,117	78.24 %
2028	$2,999,117	$335,000	$0	$59,982	$9,300	$2,000	$0	$3,382,799	80.27 %
2029	$3,382,799	$335,000	$0	$67,656	$6,330	$2,000	$0	$3,777,125	81.93 %
2030	$3,777,125	$335,000	$0	$75,542	$108,700	$2,000	$0	$4,076,967	83.40 %
2031	$4,076,967	$335,000	$0	$81,539	$876,200	$2,000	$0	$3,615,307	80.25 %
2032	$3,615,307	$335,000	$0	$72,306	$760,100	$2,000	$0	$3,260,513	78.62 %
2033	$3,260,513	$335,000	$0	$65,210	$10,700	$2,000	$0	$3,648,023	80.77 %
2034	$3,648,023	$335,000	$0	$72,960	$10,010	$2,000	$0	$4,043,974	82.54 %
2035	$4,043,974	$335,000	$0	$80,879	$2,228,400	$2,000	$0	$2,229,453	72.40 %
2036	$2,229,453	$335,000	$0	$44,589	$120,400	$2,000	$0	$2,486,642	76.48 %
2037	$2,486,642	$335,000	$0	$49,733	$2,753,100	$2,000	$0	$116,275	18.25 %
2038	$116,275	$335,000	$0	$2,325	$20,100	$2,000	$0	$431,500	60.51 %
2039	$431,500	$335,000	$0	$8,630	$7,890	$2,000	$0	$765,240	95.17 %
2040	$765,240	$335,000	$0	$15,305	$107,600	$2,000	$0	$1,005,945	135.75 %

2041	$1,005,945	$335,000	$0	$20,119	$62,500	$2,000	$0	$1,296,564	169.26 %
2042	$1,296,564	$335,000	$0	$25,931	$662,100	$2,000	$0	$993,395	570.91 %
2043	$993,395	$335,000	$0	$19,868	$192,100	$2,000	$0	$1,154,163	100.00 %

Graphic Representation



Appendix F

RDH Qualifications

RDH

RDH Qualifications 1/4

DEPRECIATION REPORT

New regulations in British Columbia make Depreciation Reports mandatory for most strata corporations. RDH Building Engineering Ltd. offers building science and building asset management services from three offices in BC; Vancouver, Victoria, and Courtenay. 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. To supplement our in-house expertise, we consult subconsultants for items such as elevator and swimming pool reviews. 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. David Albrice is a certified Professional Reserve Analyst and was one of the key people consulted when the legislation was drafted. He has an unrivaled depth of understanding of the physical, financial planning, and strata governance issues that need to be considered in the development of an effective Depreciation Report.

ABOUT US

David Albrice, B.Sc. URP, ARP, PRA

- Professional Reserve Analyst, APRA
- B.Sc. Urban and Regional Planning
- Associate Reserve Planner, REIC
- Project Manager on 100s of Facility Condition Assessments and Reserve Studies (Depreciation Reports)

Mike Wilson, P.Eng.

- B.Eng. & M.Eng., Structural Engineering
- Registered professional engineer, APEGBC
- 20 years experience as a consultant focused in the field of building science

Mark Will, Dipl.T., BA

- Dipl.T., Building Science Technology
- B.A., Economics
- 15 years experience in project management
- CHOA Board Member

Peter Fitch, C.Tech.

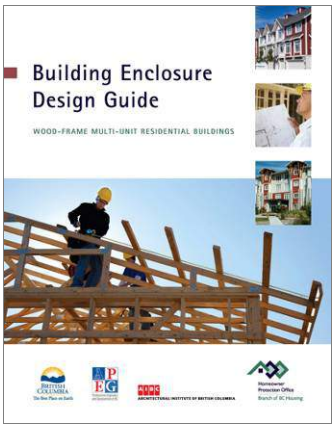
- UBC/UBCM Certified Professional program (audit only)
- Member of Applied Science Technologists & Technicians of British Columbia
- 30 years of experience in the mechanical design field

Phil Johnson, P.Eng.

- B.Sc. & M.Sc., Agricultural Engineering
- Registered professional engineer, APEGBC
- 20 years experience as a consultant focused in the field of building science

Matt Mulleray, P.Eng.

- B.A.Sc., Civil Engineering
- Dipl.T., Civil and Structural Engineering
- Registered professional engineer, APEGBC
- 10 years experience in bldg. science & engineering consulting



RDH

RDH Qualifications 2/4

Harvey Goodman, P.Eng.

- B.A.Sc., Civil Engineering
- Registered professional engineer, APEGBC
- 20 years experience in building science consulting

Serge Desmarais, Architect AIBC, CP

- B.Arch.
- Registered architect, AIBC
- Certified Professional, UBC
- 30 years experience in building design and construction capital renewal projects

Jason Dunn, B.Arch.Sc., CCCA

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

Robin Breuer, A.Sc.T., RRO

- Dipl.T., Building Engineering Technology (Building Science Option)
- Registered Roof Observer, RCI Inc.
- 15 years experience in building science consulting

Laureen Stokes, Dipl.T.

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)
- 5 years experience in building science consulting

Rob Mathena, Dipl.T.

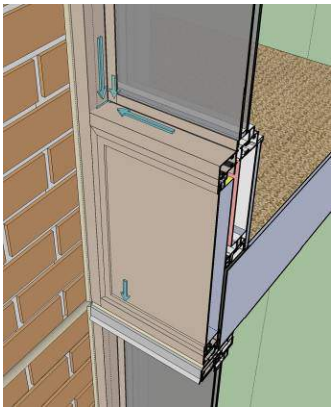
- Dipl.T., Technology in Building Engineering (Building Science Option)
- 15 years experience in building science consulting and construction

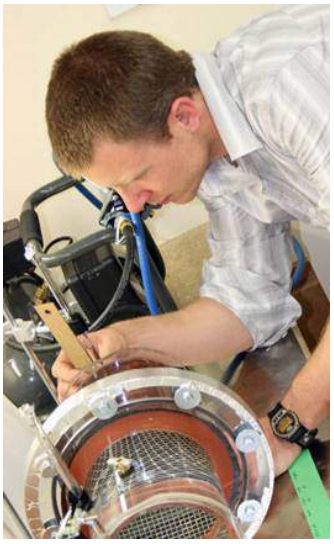
Tim Smith, A.Sc.T.

- Dipl.T., Civil Engineering Technologist
- Member of Applied Science Technologists & Technicians of British Columbia
- 5 years experience in building science consulting

Colin Symons, Dipl.Arch, CBA

- Dipl.Arch,, Architectural Technology
- Business Administration Certificate
- 30 years experience in architectural/structural design and project management





climatesmart business2011

We are committed to reducing our environmental impact. RDH participated in Climate Smart to evaluate and reduce our carbon footprint.

RDH Qualifications 3/4

Jesus De Mesa, Dipl.T.

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)

Alex Seto, Dipl.T.

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)

Roma Santos, Dipl.T.

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)

Nick Smit, Dipl.T.

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)

Kingston Chow, EIT, Dipl.T.

- B.Eng., Civil Engineering
- Dipl.T., Civil Engineering

Brandon Carreira, Dipl.T.

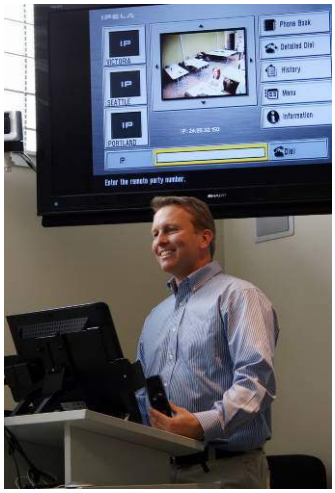
- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)

Jesse Listoen, Dipl.T.

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)

James Hornett, Dipl.T.

- Dipl.T., Architectural & Building Engineering Technology (Building Science Option)



Administrators and Client Support

Vanessa Jumawan

- 4 years experience in administration with engineering/architecture firm

Anna Qiu

- Cert., Business Administration
- 8 years experience in administration with engineering/architecture firm

Software Support and Programmers

Matthew Branch, P.Eng.

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

Gary Zhang, B.Sc.

- B.Sc., Computer Science and Engineering
- 16 years experience in software development

Kan Ma, B.Sc.

- B.Sc., Computing Science
- 6 years experience in software development

Quantity Take-Offs

Andrea Corona, Dipl.

- Dipl., Small Craft Naval Architecture
- 25 years experience in architectural drafting

Roya Kiani Amin, B.Sc.

- B.Sc., Civil Engineering
- 5 years experience in architectural drafting
- 2 years experience in construction

Brigitte MacKenzie

- 3-year Apprenticeship Program, Germany
- 25 years experience in architectural drafting

Appendix G

Insurance Certificate

Ref. No. 320006772241 AMENDED

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

Amending Certificate No. : 320006772239

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 Engineering Ltd.
224 West 8th Avenue
Vancouver, BC V5Y 1N5

Coverage

Commercial General Liability	**Insurer**	Royal and Sun Alliance Insurance Co. of Canada	
	Policy #	8141333	
	Effective	01-Jun-2013	**Expiry** 02-May-2014
	Limits of Liability	Bodily Injury & Property Damage, Each Occurrence $5,000,000 Products and Completed Operations, Aggregate $5,000,000 Personal Injury $5,000,000 Advertising Liability $5,000,000 Non-Owned Automobile Liability $5,000,000 Legal Liability for Damage to Hired Automobiles $50,000 Policy may be subject to a general aggregate and other aggregates where applicable	
Professional Liability	**Insurer**	Certain Underwriters At Lloyd's	
	Policy #	QC1302155	
	Effective	02-May-2013	**Expiry** 02-May-2014
	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

Ref. No. 320006772241 AMENDED

CERTIFICATE OF INSURANCE

Commercial General Liability

Products and Completed Operations
Broad Form Property Damage
Cross Liability
Contractual Liability

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 : 30-May-2013
Issued By : Hadden,Lindsay D.
Tel : 604-443-2524

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