Reserve Fund Planning

Existing Depreciation Report – Review Report Sample

14–232 Tenth Street, New Westminster, BC, V3M 3X9
1 (778) 232-6707 | jfproulx@constructivecrc.com
www.constructivecrc.com

Constructive Condo Reporting Corp.

Constructive Condo Reporting Corp. Review Report

October 27, 2015

Dear Strata Council members and/or Property Manager,

Please find below our review report of an existing Depreciation Report (DR), that was undertaken by an Engineer with a Certified Reserve Planner (CRP) designation.

We completed this review report on May 3, 2015.

No inspection of the development was undertaken.

No verification of the financial numbers were completed.

We provide a tally of inaccuracies found during the review in the last section.

Please feel free to contact us for clarification or if you have any questions.

Yours truly,

Jean-François Proulx, M.Sc., CRP, RI

1. What are the Existing Report's Reserve Fund Planning Results?

The existing Depreciation Report (DR) was undertaken by an Engineer who is also a Certified Reserve Planner (CRP), accredited by the Real Estate Institute of Canada's (REIC) – the cross-Canada recognised authority on reserve fund planning.

We assume that the strata council managed the development with a plan that maintained and replaced its common assets in an owner-neutral manner. We assume that the components and systems were to be subject to reserve fund planning that met the Strata Property Act (SPA) and the REIC's guidelines.

The existing report appears to have followed the REIC's guidelines. **FIGURE 1** below provides the factual and financial information for the development.

FIGURE 1 – BACKGROUND INFORMATION		
From Depreciation Report Under Review		
CLIENT:	John Doe	
	Strata Council Vitoria Way Port Alberni, BC, V5G 1J9	
PROVIDER:	Fred Bravo Engineers	
FISCAL-YEAR:	Not provided	
INSPECTION:	November 29, 2012	
PUBLICATION:	April 30, 2013	
SCENARIOS:	First	Baseline
	Second	Full Funding
	Third	Graduated
COMPONENTS:	47	
CONSTRUCTION INFLATION RATE:	2.90 percent	
INVESTMENT INTEREST RATE:	1.05 percent	

After inputting the existing DR's numbers in our computer, it appears that calculation errors are evident throughout. **FIGURE 2** on the next page provides the existing DR's benchmark analysis in **COLUMN 1**, and our re-calculations in **COLUMN 2**.

The current reserve fund requirements amount and the optimised annual contributions allocation calculations are both provided. But the reserve position amount is miscalculated and the fiscal-year to fiscal-year cumulative reserve fund standing calculation for future fiscal-years are not provided.

We thus calculated the existing DR's standings in our computer and conclude that the scenarios are putting the strata council in a critical situation that does not respect the SPA's nor the REIC's guidelines.

FIGURE 2 – RESERVE FUND FUNDAMENTALS	COLUMN 1	COLUMN 2
	From Report	From Review
1. CURRENT REPLACEMENT COSTS:	$2,339,476	$2339,479
2. FUTURE REPLACEMENT COSTS:	$4,708,669	$4,702,554
3. CURRENT REQUIREMENTS:	$929,717	$950,334
4. FUTURE ACCUMULATION:	$1,130,360	$1,150,378
5. FUTURE REQUIREMENTS:	$3,578,309	$3,552,177
6. OPTIMISED BENCHMARK CONTRIBUTIONS:	$146,590	$146,009
7. FIRST RECOMMENDED CONTRIBUTIONS:	$51,098	$51,098
8. YEAR 1 RESERVE FUND POSITION:	Not computed	9 percent
9. YEAR 30 RESERVE FUND STANDING:	Not computed	6 percent

The existing report's recommended scenario has reserved fund closing balances under the 25 percent of last fiscal-year's operating budget for three (3) fiscal-years – these have closing balances of $0, and are thus with fiscal-year-end standings below 10 percent. The report is flawed as it does not meet SPA guidelines.

2. What do the Terms Used Actually Mean?

We provide below and on the next page in **FIGURE 3** definitions of the terms that must be grasped to understand reserve fund planning. We have grouped them under finances, analysis, recommendations and red-flag categories to reflect the process of reserve fund planning.

FIGURE 3 – WHAT ARE THE IMPORTANT RESERVE FUND DEFINITIONS TO GRASP?	
Financial and Physical Definitions	
OPENING BALANCE:	Reserve fund position in dollars at the beginning of each fiscal-year. Updated each fiscal-year in terms of withdrawals, deposits, expenditures, investment returns etc.
CLOSING BALANCE:	Reserve fund monies in dollars at the end of each fiscal-year. Carried forward to the next fiscal-year as the reserve fund opening balance.
CASH RESOURCES:	Reserve fund inflows made up of reserve fund regular contributions, interest income, special contributions, transfers and/or loans, before major repairs and full replacement expenditures.
MAJOR REPAIRS:	Are for non-routine maintenance repairs that occur less than once a year. These expenditures have a capital-cost-per-event above a dollar threshold, and are part of a renewal plan for the sustainment of the development.
	If an expenditure is not a full replacement then it is a major repair, of three types: It can be an update to part of a component, an upgrade due to a code change, or an allowance for a substructure component such as the foundations.

	• Allowances are for components expected to last the economic life of the development – their role, magnitude and importance decreases as the strata council familiarises itself with the component inventory. • An update may appear more than once over the 30 year projections, an upgrade usually once, and allowances do not appear in a projection, but are included in the monies required in the benchmark calculations.
FULL REPLACEMENTS:	• Planning for the full replacement of components or a complete renewal – sloped-roof shingles – is the main type of component. • Full replacements are quantified, have unit replacement costs and have a clear lifespan. • Most appear once over a thirty (30) year projection and in all scenarios, depending on the condition of the component and the economic age of the development.
RENEWAL(S):	• A renewal is the process of undertaking systemic reconstruction and/or replacement work due to the normal wear and deterioration of aging components that have reached the end of their service life. A renewal plan leads to remediation projects, and differs from a rehabilitation or renovation project, as the latter are associated with premature failure due to lack of maintenance, and/or other changes.
	• Allowance are not the only scheduled expenditures that do not appear in a projection. Some major repairs and replacement components are scheduled for expenditures beyond the thirty (30) fiscal-years in a point-in-time projection, but all are included in the benchmark calculation, and in each fiscal-year's current requirements calculation.
RESERVE FUND POSITION(S):	• First column end of fiscal-year dollar amount, and following line percentage, calculated by dividing the closing reserve fund balance over the yearly adjusted benchmarked reserve requirements. For the current fiscal-year only, the calculation excludes inflation and interest factors, and borrows the current requirements amount from the benchmark. A position is a static result not unlike a net-worth calculation. It tells us where we are today in a way that is comparable across developments.
Reserve Fund Analysis Definitions	
CURRENT REPLACEMENT COSTS:	• Total of individual component replacement costs at end of current fiscal-year. • This number is the foundation of benchmark analysis and is to be only used in the benchmark. • No development ever replaces all the components and elements all at once, but all reports produce these numbers so that reports and developments can be compared.
CURRENT REQUIREMENTS:	• The benchmark analysis produces the current amount required to cover the major repairs and replacements of components from construction of the development to date. • This number factors in the remaining lifespan, inflation, interest, transfers and expenditures. • The REIC standard adjusts the current requirements total each fiscal-year by factoring in the Investment Income Rate (IIR) as an escalator.
ANNUAL OPTIMISED ALLOCATION:	• The benchmark analysis produces the current optimised regular contributions that could be drawn if it were to conduct all planned future expenditures as laid out in the benchmark.

RESERVE FUND STANDING:	• Measure of a reserve fund year-to-year cumulative ratio of any year's closing balance to carried-over fully funded benchmark adjusted requirements, expressed as a percentage. • To be interpreted as the dynamic process of planning for the monies over the long-term. • The standings are adjusted and cumulative and take into account construction inflation, investment income, expenditures, and contributions. • A standing is a quantitative interpretation of where a reserve fund is at the end of a fiscal-year. • It is best to interpret these percentages as a comparable that matches needs and means. • Each percentage is a guideline for managing the risk involved in drawing expenditures and asking for contributions. • A standing is easier to track as it is a percentage and not a dollar value.
PER LOT INTERPRETATIONS:	• As annual totals can be difficult to grasp, and as most strata lot owners focus on their personal finances and thus relate to their annual or monthly strata fees and reserve fund contributions. • Interpreting the variables by dividing them over the number of strata lots in the development is a simple-way to make sense of the information.
Recommendations Definitions	
CONTRIBUTION INCREASE RATE:	• The fiscal year-to-year escalating increase rate that factors in both inflation and interest rates to determine the required escalating percentage for regular reserve fund contributions.
RECOMMENDED CONTRIBUTIONS:	• Provided depreciation report's recommended next fiscal-year's annual reserve fund contributions amount that is not necessarily the annual allocation amount.
SPECIAL CONTRIBUTIONS:	• Planned 50 percent simple-majority vote reserve fund contributions with interest accrued, above regular reserve fund contributions, typically in a future fiscal-year when a large expenditure occurs.
Red-flag Definitions	
SPECIAL LEVIES	• SPA mandated ¾ vote monies that do not belong in the reserve fund, nor does their interest accrued, although their work affects the effective age of components. • The purpose of reserve fund planning is to plan for their elimination.

We provide on the next page in **FIGURE 4** the results of our re-calculations of the existing DR's benchmark numbers, at the aggregate level of component categories.

Basing the requirements on **COLUMN 8**'s current costs total of $2,339,479 would mean that no depreciation is taken into account, and that the reserve fund requirements are to be equal to what would follow a disaster, such as an earthquake – current costs are not to be used for reserve fund planning.

By focusing on the performance of the components in the inventory – and as a result of the age, condition and management of this development's assets – at this point-in-time, according to **COLUMN 10**'s total, current requirements

are $950,334. This calculation represents the next AGM's special contribution amount that would be required to make-up for all missed regular contributions since construction.

COLUMN 13 provides the optimised required annual regular contributions amount of $146,009, that would be required in future fiscal-years, in conjunction with the special contribution, to meet the strata corporation's needs as of this point-in-time.

Other Canadian provinces' legislation mandates that these two numbers be put in place by strata corporations – what are BC strata corporations mandated to do?

FIGURE 4 – BENCHMARK RE-CALCULATIONS

INVENTORY CATEGORIES	8. CURRENT REPLACEMENT COST	9. FUTURE REPLACEMENT COST	10. CURRENT RESERVE FUND REQUIREMENT	11. FUTURE RESERVE FUND ACCUMULATION	12. FUTURE RESERVE FUND REQUIREMENT	13. RESERVE FUND OPTIMISED ANNUAL CONTRIBUTIONS	14. ANNUAL CONTRIBUTIONS PERCENT ALLOCATION
Structural and Architectural	$982,072	$1,885,223	$388,882	$473,928	$1,411,296	$61,657	42%
Roofing	$460,604	$1,131,551	$147,864	$194,421	$937,129	$27,257	19%
Interiors	$4,030	$5,212	$403	$443	$4,770	$508	0%
Conveyance	$194,485	$320,555	$80,104	$95,844	$224,711	$11,893	8%
Mechanical Systems	$323,928	$423,944	$225,936	$240,810	$183,134	$21,116	14%
Electrical Systems	$47,980	$81,581	$21,362	$24,746	$56,835	$3,198	2%
Amenities	$11,200	$14,486	$1,120	$1,230	$13,256	$1,412	1%
Site Improvements	$310,180	$834,554	$83,413	$117,665	$716,889	$17,596	12%
Consultant Reports	$5,000	$5,448	$1,250	$1,290	$4,158	$1,372	1%
TOTAL RESERVES - With Errors by Planner	$2,339,476	$4,708,669	$929,717	$1,130,360	$3,578,309	$146,590	100%
TOTAL RESERVES - Re-Calculations	**$2,339,479**	**$4,702,554**	**$950,334**	**$1,150,378**	**$3,552,177**	**$146,009**	**100%**

3. What are Typical Reserve Fund Planning Strategies in British Columbia?

It is easy to grasp that funding strategies have a direct impact on short-term and long-term reserve fund regular contributions and special contributions, on the reliance on special levies, and on financial planning for each individual lot owner – as well as on the property value of strata lots.

When it comes to risk management and peoples' personal finances, there are four (4) strategies that come to mind – predictive, preventative, reliability-based and run-to-failure – that are used depending on where people are in their life-cycle.

What about reserve fund monies? How are these to be managed to meet strata council fiduciary responsibilities?

In terms of reserve fund planning – **that meet SPA mandated guidelines** – there are currently two (2) kinds of strategies used by strata corporations in British Columbia (BC) as summarised in **FIGURE 5** below and on the next page.

Both kinds of strategy rely on the analysis of annual cashflow in and out of the reserve fund on a fiscal-year basis, but only the later extends the thinking to more than a few fiscal-years.

FIGURE 5 – ACCEPTABLE RESERVE FUND PLANNING STRATEGIES

STRATA STRATEGY 1 – Strata Property Act Basic Guidelines	
STATUTORY STRATEGIES FALL BETWEEN BASELINE AND STATUTORY MODELLING:	• Baseline strategies are based on the minimal requirements imposed on developers. • These have the initial reserve funding set at 5 percent of the operating budget, with a specified arbitrary constant yearly reserve fund balance amount that is rarely above and is soon below the SPA's mandated requirement, as this amount is not adjusted for inflation.
	• Statutory threshold strategies follow the SPA's mandated requirement, which have strata corporations keep the equivalent of 25 percent of a prior fiscal-year's operating budget in the reserve fund.
	• The needs of operating budget items have little to do with the needs of reserve fund components. • Continuing to rely on these methods is misguided as these past-the-post and simple-ratio approaches are based on a reduced operating budget number and as these non-inflation adjusted numbers are only valid for the next fiscal-year.
STRATA STRATEGY 2 – Benchmarked Basic Guidelines	
BENCHMARK STRATEGIES ARE BASED ON:	• Consideration of the development since construction.
	• Comprehensive all-at-once focus on all the variables.
	• Minimizing risk by having stable contribution increases meet the common asset needs without relying on special levies.
	• The principle that current owners contribute in terms of what they use while they are living in the development.
	• A writer is to produce a recommended scenario that falls between the existing and the benchmark scenarios. • The recommended scenario is meant to allow councils to customize their risk exposure and to help them set yearly goals for contributions, reserve fund balances and possible special contributions, considered all-at-once.

Specifically, statutory strategies have the opening balance tied to regular contributions such that the opening balance meets 25 percent of last fiscal-year's operating budget – with shortfalls requiring 10 percent of the current fiscal-year's operating budget as contributions, until the 25 percent statutory requirement is reached.

With this mandated guideline, the opening balance and by extension the closing balance can never be $0, as at least 10 percent of a current fiscal-year's operating budget needs to be contributed.

With this strategy, reserve fund planning decisions are based on one variable – the closing balance – and conflicts about contributions are typically resolved with frequent and large special levies.

Using this strategy has meant reacting based on annual operating budget 'leftover' transfers and has led to: 1. erratic reserve fund balances, 2. occasional transfers from the operating fund, 3. low contributions and 4. regular special levies.

This strategy type has little to do with capital assets or the true cost of common component major repairs and replacements. It lacks comprehensiveness as it relies on: 1. the current year, 2. a single variable or 3. a ratio that has little to do with common assets needs or reality.

As councils shift from existing strategies towards benchmarked strategies – towards a proactive and optimal approach – a strata corporation is better prepared for future expenditures, strata lot owners can plan their personal finances with greater certainty, reserve fund monies can be invested to maximise investment income, and stakeholders can all be on the same page.

To summarise reserve fund planning aligned with **STRATEGY 2**, we present below in **FIGURE 6** reasons why benchmarked reserve fund planning built on a realistic active component inventory makes the most sense.

FIGURE 6 – WHY IS BENCHMARKING SO IMPORTANT?
Benchmark based funding plans facilitate active long-term management of reserve fund contributions, decrease the number and size of special contributions, and protect against special levies.
Benchmarked reserve fund plans do not rely on surprise special levies that must pass with a 75 percent vote at a Special General Meeting (SGM) or at an Annual General Meeting (AGM).
Benchmarked funding aims for stable regular contribution escalating increases, and special contributions made in years with large expenditures, so that monies are sufficient to reach a strata council's funding goals under simple-majority 50 percent voting at AGMs.
A benchmark fosters increasing the closing balance to current requirements ratios, from fiscal-year to fiscal-year, on a cumulative long-term basis – over a thirty (30) year projection.
Best-practice benchmark analysis sets the parameters for all other recommended scenarios, thus allowing comparisons between scenarios and across developments.

4. What are the Provided Depreciation Report's Scenarios

A reserve fund's fiscal-year to fiscal-year closing balance position and its fiscal-year to fiscal-year current requirements 'adjusted cumulative standing' are specific to each development. Knowing about positions and standings helps stakeholders compare strata lots and developments.

On a calendar year basis, a reserve fund may have sufficient monies when: 1. the opening balance and 2. the cash inflows – contributions, special contributions, loan income, if any, and/or investment income provide enough cash resources for all cash outflows or expenditures during a fiscal-year.

But this simple bookkeeping does not measure the future ongoing needs of a strata corporation's component inventory – it does not provide an analysis of how the reserve fund is to be funded over time. A DR's recommended scenario is supposed to provide a clear effective roadmap.

BC's SPA requires that three reserve fund scenarios be included in a DR, and thus, any scenario can be a recommended scenario. We have identified the scenarios labelled in the DR under review and have classified them based on the types discussed above.

FIGURE 7 below summarises the existing DR's labels used to define the scenarios; the terms the report uses to describe these scenarios, and the class of scenario according to the strategy types discussed above.

It appears that the benchmark has not been tied into a benchmarked scenario, and that all scenarios are borderline statutory scenarios. We turn next to discussing the importance of the benchmark to establishing a usable recommended scenario for reserve fund planning.

FIGURE 7 – EXISTING DEPRECIATION REPORT'S PROVIDED SCENARIOS

Named Scenarios	Existing Report Identifies Scenario As	We Classify it As
Baseline	Statutory 10 percent	Below Statutory
Theoretical Fully Funded	Inflation Adjusted Contributions with a positive closing balance at the end of 30 years	Above Statutory
Hybrid	Achieve 2013's 50 percent fully funded number in 2018 without inflating it	Above and Below Statutory

5. Why Analyse a Closing Balance's Relation to a Benchmark Requirement?

The difference between an actual current reserve fund balance and a benchmarked reserve fund balance, provides an indication of the point-in-time position of a development's reserve fund.

On a fiscal-year basis, determining how a closing reserve fund balance relates to a benchmark's current reserve fund requirements provides a 'standing for each future fiscal-year. A reserve fund's 'fiscal-year to fiscal-year closing balance' to 'cumulative and adjusted current requirements' ratio is specific to each development, and yet comparable across fiscal-years and developments.

With a proper benchmark correctly carried-over into a projection of scheduled expenditures, the reserve fund standings can be computed. Standings provide a fiscal-year to fiscal-year indication of how the finances stack-up, so that strata lot owners can plan their finances.

A standing is measured by first, calculating the strata corporation's current reserve fund requirements – or what would be required in the bank today to cover missed and current reserve fund obligations, and second, by comparing the current year's closing balance to the current requirements, and expressing the result as a percentage.

This year-to-year adjusted comparison standing tool is best seen as a ratio of the current to the projected closing balances. It compares each fiscal-year's reserve fund requirements and adjusts them for the next fiscal-years, by factoring in depreciation, contributions, loans, interest income, expenditures etc.

The closing and opening balances change each fiscal-year, and are best seen as a moving and measurable target. Measuring a reserve fund's standings – expressed in terms of a moving year-to-year adjusted percentage of the benchmark contribution requirement – does not set-in-stone how a strata corporation is financially prepared for upcoming reserve fund expenditures.

The REIC practical approach focuses on how to fund a reserve fund to assist strata councils choose their exposure to risk. **FIGURE 8** on the next page provides an overview of strata corporations' current risk-management perspectives across North America. In our experience, the majority of BC strata developments with DRs have standings below the 35 percent range.

FIGURE 8 – WHAT DO YOU CONCLUDE WHEN YOU CALCULATE A RESERVE FUND'S FUTURE END-OF-FISCAL-YEAR STANDINGS?	
Based on a Scale from 0 percent to above 100 percent	
Reserve fund's end-of-year standing below 35 percent with predisposition for borrowings, loans or special levies.	
CRITICAL	**Up to 35 percent**
Reserve fund standing between 36 and 70 percent with propensity towards higher regular contributions, fewer periodical special contributions, and less risk of special levies.	
AVERAGE	**Between 36 and 70 percent**
Reserve fund standing above 71 percent with preference for rare cashflow problems, and orderly major repairs, replacements and renewals.	
STRONG	**Above 71 percent**
Source: North American Association Reports and our experience.	

It is important to note that as these standings are based on a point-in-time assessment of the performance of the common assets, the fiscal-year-end closing balances will change as components and systems are renewed.

As per the SPA, once a DR has been acquired, a strata council is responsible for scheduling both the timing of expenditures and how they will be funded, above and beyond the statutory guidelines.

Even with stable regular contributions, if a development recently had its windows replaced, the reserve fund position in the fiscal-year after the replacement would increase significantly if reserve fund planning had not prepared for it.

Certainly current requirements will shrink when projects are accomplished and/or after expenditures are undertaken. As such planning based on a stable ratio over time is easier to grasp than planning for fluctuating balances or expenditures.

6. The Existing DR and Best-practice Reserve Fund Planning

The standing comparable is not currently mentioned in BC's legislation, but standards set by reserve study and DR accrediting organisations throughout North America, such as the REIC, require it.

Engineers practicing in BC – such as the existing report's writer – have their association guidelines explicitly refer to the REIC's technical bulletins, that state that the reserve fund closing balance year-to-year comparable is a basic requirement of DRs – currently very few engineers adhere to this guideline.

We suggest that for the benefit of all stakeholders, reserve fund planners must adhere to the REIC guidelines – even if these go beyond the legislated guidelines. Not providing standing calculations means that a report cannot be analysed quickly or compared, and that it is un-updatable or un-usable for comparing strata lots and developments.

A reserve fund standing does not tell us if a reserve fund is adequate or adequately funded – this is a qualitative interpretation of risk to be determined by the strata council.

The standings are about the performance of the components, not of the strata council. Strata council members will continue to determine whether reserve funding is sufficient to meet the strata council's fiduciary responsibility to the strata corporation.

Standing computations have not been provided in the report under review. As these are based on the benchmark analysis – included in the depreciation report under review – we corrected and inputted the data in our computer to produce them ourselves. The graphs on the following pages provide the results of our analysis of the existing report's recommended hybrid scenario.

7. Our Analysis of the Existing Report's Recommended Scenario

FIGURE 9 – RECOMMENDED SCENARIO'S RESERVE FUND PROFILE – EXPENDITURES, REGULAR CONTRIBUTIONS, CLOSING BALANCE AND ANTICIPATED SPECIAL CONTRIBUTIONS

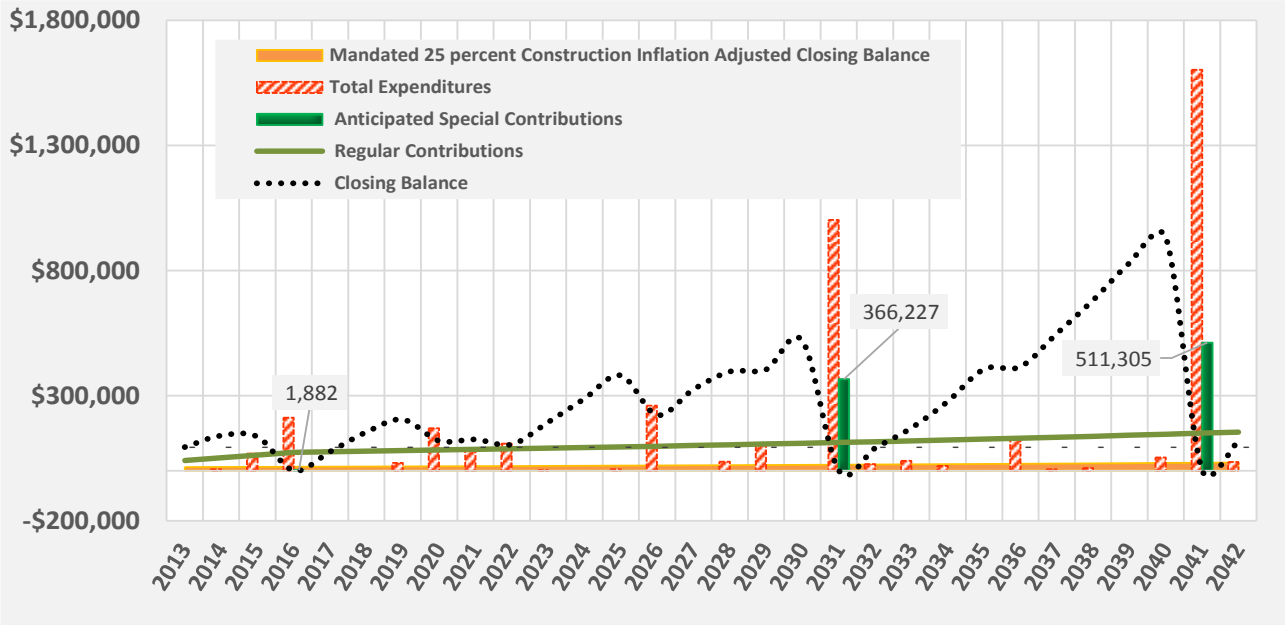

FIGURE 10 – RECOMMENDED SCENARIO'S STANDINGS PROFILE – GRAY BOX REFERS TO CURRENT BC PROFILES

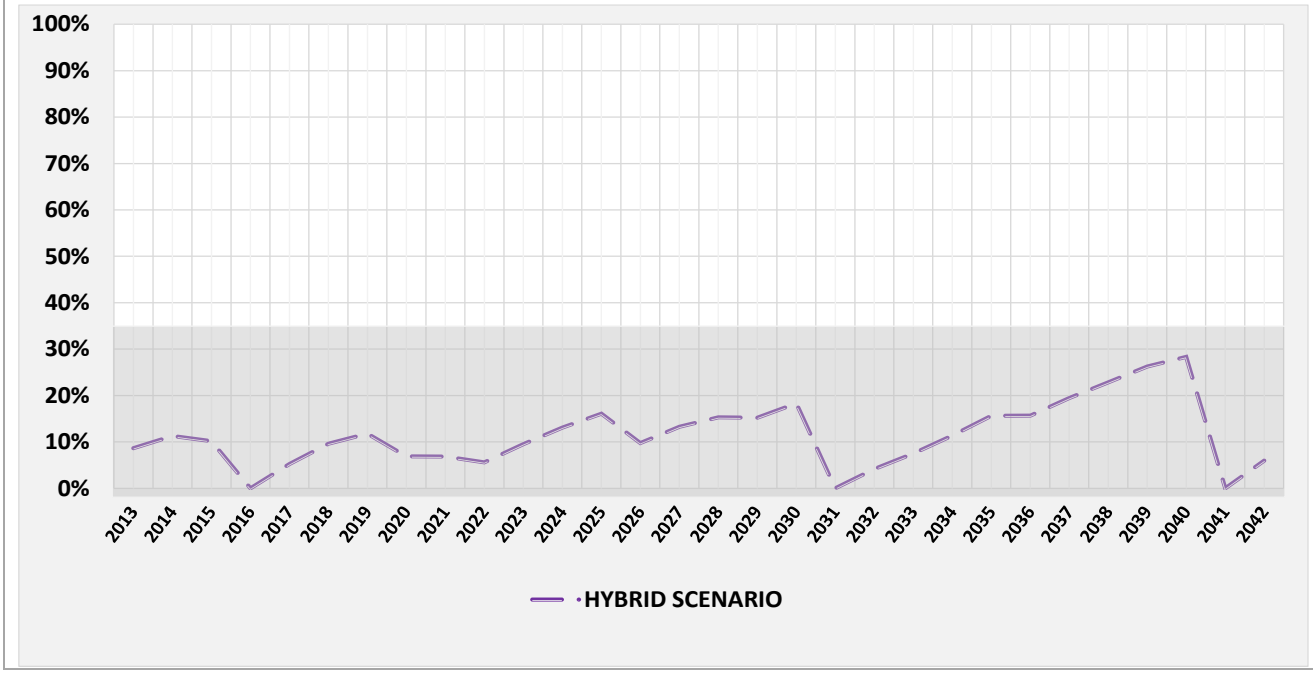

FIGURE 10 – CASHFLOW ANALYSIS OF PROVIDED DEPRECIATION REPORT'S RECOMMENDED RESERVE FUNDING SCENARIO

1. Fiscal-Year-End Not Provided	2. Projected Reserve Fund Opening Balance	3. Recommended Regular Contributions	4. Percentage Increase in Contributions	5. Projected Reserve Fund Interest Earned	6. Anticipated Special Contributions	7. Projected Inflation Adjusted Expenditures	8. Projected Reserve Fund Closing Balance	9. Cumulative Standings
2012	$72,182	$20,000	N.A.	$758	$0	$0	$92,940	N.A.
2013	$53,090	$40,000	100%	$557	$0	$0	$93,647	**9%**
2014	$93,647	$51,098	28%	$983	$0	$6,000	$139,728	**11%**
2015	$139,728	$62,197	22%	$1,467	$0	$68,352	$135,040	**10%**
2016	$135,040	$73,295	18%	$1,418	$1,882	$211,635	$0	**0%**
2017	$0	$75,421	3%	$0	$0	$0	$75,421	**5%**
2018	$75,421	$77,608	3%	$792	$0	$0	$153,821	**10%**
2019	$153,821	$79,859	3%	$1,615	$0	$31,176	$204,119	**12%**
2020	$204,119	$82,175	3%	$2,143	$0	$169,710	$118,728	**7%**
2021	$118,728	$84,558	3%	$1,247	$0	$80,237	$124,295	**7%**
2022	$124,295	$87,010	3%	$1,305	$0	$108,195	$104,415	**6%**
2023	$104,415	$89,533	3%	$1,096	$0	$1,764	$193,281	**10%**
2024	$193,281	$92,130	3%	$2,029	$0	$0	$287,440	**13%**
2025	$287,440	$94,802	3%	$3,018	$0	$5,000	$380,260	**16%**
2026	$380,260	$97,551	3%	$3,993	$0	$259,956	$221,847	**10%**
2027	$221,847	$100,380	3%	$2,329	$0	$0	$324,556	**13%**
2028	$324,556	$103,291	3%	$3,408	$0	$35,604	$395,651	**15%**
2029	$395,651	$106,286	3%	$4,154	$0	$101,993	$404,098	**15%**
2030	$404,098	$109,368	3%	$4,243	$0	$0	$517,710	**18%**
2031	$517,710	$112,540	3%	$5,436	$366,227	$1,001,913	$0	**0%**
2032	$0	$115,804	3%	$0	$0	$26,218	$89,586	**4%**
2033	$89,586	$119,162	3%	$941	$0	$39,059	$170,631	**7%**
2034	$170,631	$122,618	3%	$1,792	$0	$18,397	$276,643	**11%**
2035	$276,643	$126,174	3%	$2,905	$0	$0	$405,721	**16%**
2036	$405,721	$129,833	3%	$4,260	$0	$124,588	$415,226	**16%**
2037	$415,226	$133,598	3%	$4,360	$0	$5,000	$548,184	**19%**
2038	$548,184	$137,472	3%	$5,756	$0	$10,000	$681,412	**23%**
2039	$681,412	$141,459	3%	$7,155	$0	$0	$830,026	**26%**
2040	$830,026	$145,561	3%	$8,715	$0	$52,712	$931,591	**28%**
2041	$931,591	$149,783	3%	$9,782	$511,305	$1,602,461	$0	**0%**
2042	$0	$154,126	3%	$0	$0	$34,894	$119,233	**6%**
Totals over 30 years		$3,094,691		$86,899	$879,415	$3,994,862		

8. Comments on Existing Depreciation Report

1. No fiscal-year dates are provided despite the writer having received the financials from the strata corporation (page 5). This indicates that beginning to end of calendar year, rather than year-to-year logic, was used.
2. The inflation and interest rates used appear realistic and thus usable as the former is a construction inflation rate, and the later a historical rate.
3. The mathematical totals for each column of Appendix B are incorrect.
4. The benchmark analysis is under-estimated by 9 expenditures, totalling $188,749, and these are inserted in the scenarios but not in the benchmark. The benchmark analysis is not translated into the projections in a manner that conforms to current reserve funding standards.
5. The benchmark provided includes contingencies with specified draw years contrary to sound reserve fund planning logic that has the allowances benchmarked over the economic life of the development, typically 70 years.
6. The benchmark's costing year is 2013 such that the typical component is 12 years old, but the projections begin in 2012 and include 31 years. This explain the following error.
7. The 2013 projection column should have $929,717 for reserve requirements rather than the next year's amount – the recommended scenario is thus flawed.
8. If the closing balance for 2011–12 is $92,940, either $39,850 in expenditures is missing in the first 2011–12 column or the opening balance for 2012–13 is incorrect by the same amount.
9. While future special contributions are inputted in current dollars that is not the case for contributions, which are to be adjusted for inflation yearly. In other words, half of the full contributions in 2012–13 is not $75,421 as inputted in the projection nor $73,295, as divided from the benchmark fiscal year of 2012–13. Increasing the contributions by $11,098 each year until 2018 is not increasing the contributions to reach 50 percent of fully funded in 3 years as none of these strategies increasing the contributions yearly to meet inflation, interest, expenditures etc.

10. Exterior Painting is benchmarked with an observed age of 5, but inserted in the projection with an age of 6, such that the first inputted year should be either 2017 or 2018 not 2015.

11. Sealant is benchmarked for 2018 but appears in 2015, with four (4) further instances rather than three (3).

12. The depreciation report component is left at $5,000 throughout the 30 years and is therefore not inflated correctly – the recommended scenario is flawed.

13. The provided 'fully funded model' has no special contributions in the immediate next fiscal-year and has full funding reached at the end of 30 years. Sound practice is to have one special contribution in the next fiscal-year and then to have the regular contributions be equal to the benchmark analysis fully funded annual contributions number for all remaining years. The existing depreciation report's three (3) scenarios are not built on a rigorous understanding of benchmark analysis.

14. The existing report calls the special contributions 'special levies' and has interest accrued on them in the scenarios – it is thus in breach of the SPA mandate.

15. The graduated scenario has three years with an opening balance of $0, contradicting SPA and indicating a beginning to end of calendar year thinking rather than fiscal year-to-year modelling. It further appears that the special contributions were inputted manually for fiscal-years when the closing balances were below zero. Assuming that the writer is in fact using a software to produce a spreadsheet, and not simply inputting raw numbers in a table, then it follows that the spreadsheet year-to-year calculations will not work if any opening balance is below 25 percent of last year's operating budget. In other words, using the 2011–12 fiscal-year numbers, if the opening balance were to go below $14,208, then an extra amount would have to be added to the projections to meet the requirements of the SPA. This amount – if the opening balance was from $0 to $14,207 – would be $5,167, and it would need to be added in the same year and to the calculated contribution number in the spreadsheet. Simply put, this added complexity – and impossibility of knowing the operating budgets of the future – can be avoided by assuming that no opening and closing reserve fund balance goes below

$14,208 over the 30 years – adjusted for inflation or not. This assumption meets the requirements of SPA and the principles of sound reserve fund planning.

16. There are several timeframes for recommendations in the report, either 2015 or 2018. This approach is arbitrary and not based on sound understanding – using a non-inflated benchmark number computed for fiscal-year 2013 in 2016 or 2018 is unsound as this number is not adjusted for income, expenditures, inflation, component condition and as such, the percentage amount carried over to 2016 is not correct.

17. The report under review recommends increasing contributions from $150 PL and then beyond the benchmark's optimised annual allocation amount. In our experience, the average in BC is $40 and $80 across North America.

18. "The hybrid model is a funding strategy that [the company] recommends, which will allow the Strata Corporation to gradually increase their contributions to a 50 percent fully funded level by 2016, then implementing inflationary increases thereafter - mitigating the potential of special levies." (page 3). The existing report misinterprets this fundamental guideline.

19. "These costs do not consist of all contractor mobilization and front end costs, overhead and profit, as well as a detailed schedule of values, which would require the review of drawings, details, specifications and material schedules. Contingencies, consulting, project management and general contractor fees have also not been included" (page 12). Thus the costs are under estimated and the reserve fund modelling less than reflective of reality – the report cannot be relied upon.

20. "Baseline: status quo with inflationary increases (page 13) or with the statutory requirement of 10 percent of the operating budget, whichever is higher" (page 14). This is stated and yet not respected in the modelling. It thus adds weight to point 13's comment.