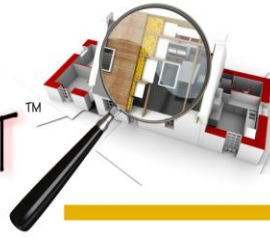


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December 3, 2019

Strata KAS 2849

c/o Rachel Parker  
Associa British Columbia Inc.  
Kelowna BC

By email

Dear Ms. Parker,

Re: Final Depreciation Report Document KAS 1128 Sunset Waterfront

Please find attached the updated Depreciation Report prepared to provide pertinent information about the property at 1128 Sunset Drive known as the Sunset Waterfront resort for KAS 2849.

A site visit and assessment has been conducted on all the major visible elements of the building in concert with your site building manager. The building remains in good to very good condition with little expected capital costs in the near term other than exterior upper deck surface repairs. We recommend that major component preventative maintenance programs for the elevator; HVAC/heat pump equipment; and parkade/deck surfacing be initiated in the next 3-4 years for replacement scheduling, which is not abnormal for a then 20+ year building.

In the meantime, capital costs have been allocated for expected repairs as outlined in the reporting. On request the geothermal reserve fund, the yearly contribution, and the existing loan payments that will be available after the loan is paid off in 2032 has been incorporated in the capital cost assessment protocol of the CRF.

The study must be read in its entirety to understand the findings contained within. Otherwise particular sampling information in the study may be taken out of context. We recommend the study be updated every three years to keep it current. This report is thorough but not technically exhaustive. The study will not be released to anyone without your permission. Thank you for giving us the opportunity to be of service.

Should you have any questions regarding this study, please do not hesitate to be in contact.

Sincerely,

*Craig Hostland*

Craig Hostland P. Eng. MBA

**Project Name: Sunset Waterfront Resort**  
**Address: 1128 Sunset Drive, Kelowna, BC**



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# DEPRECIATION REPORT

## Summary

The continuing the present annual strata fee contribution of \$80,000 plus 1.9% increase for inflation is not considered adequate, based on the assumed interest rate of 1.5% for the reserve fund investment and annual inflation rate of 1.9%. The contributions must be indexed periodically, as indicated in our report. Based on the existing annual contribution without geothermal reserve assistance, the strata will run into deficits within 10 years. From the previous depreciation report conducted in 2016, the Strata's financial conditions are worse off. The yearly allocation of \$90,000 to the CRF in 2016 was reduced by Strata to \$80,000 by 2019. The previous report recommended a 5% annual increase that would have put the yearly allocation at \$ 104,186 with a reserve of \$ 1,124,005 instead of the existing \$ 972,388. If the 2016 program was maintained, the Strata would have no deficit with an accrued value of \$3.2 million in 2046. That did not take into account the folding in of the geothermal assess and revenue stream.

On discussion with Council, the reduced allocation and reduced reserve fund is due to expected funds from the completion of loan payments for the geothermal system in 2032 that will then become available for the CRF requirements. As such, the geothermal reserve fund and yearly allocations have now been rolled into the CRF.

From the 2019 financials, and merging the reserve funds, the Geothermal revenue and for C2, the yearly Geothermal loan payment in 2032, the two scenarios C1 and C2 are considered to ensure expected capital costs for the next 30 years will be addressed.

Scenario C3 includes the geothermal reserve, but no revenues or loan payments. It provides for a 1.5% annual increase with small cash calls in 2034, 2037 and then a large cash call in 2045 with smaller ones in 2046 and 2047.

Scenario C4 includes the geothermal reserve only and provides the rate of inflation annual increase of 1.9% during the term with a cash calls in 2045 and 2046.

**Our recommendation is to consider scenario C1 as the financial plan going forward.**

Without geothermal reserve or income inclusion scenario C4 is recommended. Actual capital cost expenditure valuations are more prone to variation and adaptation over longer time periods with opportunities for cost savings in the intervening years. It is our belief that the preventative maintenance program we are now recommending will likely provide cost savings in the mid-term that will translate positively into the later years of this timeline.

# **1. Introduction**

## **1.1 Authorization and Scope**

As per the request of the Strata and in accordance with our Proposal, a Depreciation Report Update was prepared for KAS 2849 after site investigation and component verification through review of drawings and discussions with the property site manager. The Strata continues have a planned maintenance program and detailed documentation on costs expended to date to draw from. This was supplemented from information provided by the major service trades who provided specialized maintenance to the complex.

This study is intended for the exclusive use of the Strata. Use of the information obtained within this study by another party is not intended and, therefore, we accept no responsibility for such use.

The Depreciation Report is thorough by not technically exhaustive. While some comments on building construction may be made with respect to life expectancies, this study is not a technical evaluation of the property.

Before any major repairs or replacements are undertaken, we recommend that a detailed updated condition survey be performed and a necessary plan of action for deficiencies be developed.

The preparation and site inspection were carried out in September, 2019. Our inspection was limited to the review of historical data and the review of components that were readily visible and not obstructed by storage, vegetation, etc, and contains component product and replacement timeline estimates based on similar projects and assumed scopes of work. Refer to the project limitations and assumptions sections of the report.

Only the items specifically addressed in this study were examined. No comment is offered on building code and building bylaw compliance, or on environmental concerns.

## **1.2 Property Description**

The development at 1128 Sunset Drive in Kelowna, BC, is composed of four 10 to 12 year old buildings as follows:

- Building #1: Sunset Drive townhouses. One story building with a total area of 3,771 sq.ft. Four single level suites in total, each with a front patio area.
- Building #2: Lagoon side townhouses. A three story building plus loft with a total area of 8,928 sq.ft. per floor.
  - 1<sup>st</sup> floor: Five single level suites, each with a front (lagoon side) yard/ patio area.
  - 2<sup>nd</sup> floor: Five single level suites, with six balconies (corner suite has two balconies).

- 3<sup>rd</sup> floor: Five suites with six balconies (corner suite has two balconies) with 2<sup>nd</sup> floor bedrooms with balconies.
- Building #3: Tower suites. Twenty one story building with a total area of 10,266 sq.ft. per floor.
  - 1<sup>st</sup> floor (main floor): One single level suite with a front (Lagoon side) yard area.
  - 2<sup>nd</sup> floor: Two single level suites with three balconies.
  - 3<sup>rd</sup> floor: Seven single level suites with nine balconies.
  - 4<sup>th</sup> floor: Seven single level suites with twelve balconies.
  - 5<sup>th</sup> floor: Seven single level suites with eleven balconies.
  - 6<sup>th</sup> – 15<sup>th</sup> floor: Seven single level suites with eleven balconies.
  - 16<sup>th</sup> – 18<sup>th</sup> floor: Four single level suites with eight balconies.
  - 19<sup>th</sup> floor: Three suites, each with a 2<sup>nd</sup> level loft, and a total of with eight balconies.
- Building #4: Parking garage. Two story building with a total area of 32,104 sq.ft. per floor, and one hundred and seventy-eight parking stalls (9'-0" wide by 19'-0" deep each). The 1<sup>st</sup> floor parking garage is accessible from the north side of the building. The 2nd level parking garage is accessible via ramp at the North side of the building also. The parking garage can accommodate approximately 176 cars, 82 of them on the lower level and 2 outside.
  - 3<sup>rd</sup> floor: Plaza level. Walkways, landscaping, swimming pool, hot tub and the tennis court are located on this level. The plaza level provides access to/ from buildings #2 and #3.

It was reported that the buildings were built in 2003-2005. An average of 2004 was used in the financial process. The main entrance to the buildings is located on the north side. The buildings were essentially occupied during our site visit.

A more detailed description of the building components is provided in Section 2 of this study.

Further, the strata has purchased the geothermal system through a mortgage that is paid off in 2032. As such, commencing 2033, there is an annual income of \$210,041 that can be allocated to the CRF for cash calls. Per direction,

### **1.3 Document Review**

Relevant information was provided by the strata management company and the site building manager. A file review with the City of Kelowna was not conducted.

## 1.4 Building construction drawings

A set of architectural, structural, mechanical, electrical, sprinkler, and geothermal system plans was provided. These were noted as follows:

Drawing number	Designer	Date
Architectural: A1: A1.01 to A1.03, A2: A2.01 to A2.18 A3: A3.01 to A3.04 A4: A4.01 to A4.14, excepting A4.03 A5: A5.01 to A5.03 A6: A6.01 to A6.16 excepting A6.09 A7: A7.01 A8: A8.01 and A8.02	Alvin Reinhard Fritz Architect Inc. Contact: Richard Schalk RR8 S28 C14 5801 1 <sup>st</sup> Ave. South Lethbridge Alberta, T1J 4P4 Tel.: 403-320-8100, Fax: 403-327-3373 Email: <a href="mailto:general@alvinfritzarchitect.com">general@alvinfritzarchitect.com</a>	Registered Architect stamp dated 18 <sup>th</sup> July 2003.
Structural           S101 to S103 S201 to S218 (S215 noted wrongly named as S216) S301 to S304 S401 to S402 S601 to S604	Jacobsen Hage Engineering Contact: Sven Hage 202. 10459 – 178 Street Edmonton, Alberta T5S 1R5 Tel.: 780-484-1095, Fax: 780-484-1098 Email: <a href="mailto:sven@jacobsen-hage.ab.ca">sven@jacobsen-hage.ab.ca</a>  Glotman – Simpson Consulting Engineers 1661 West 5 <sup>th</sup> Avenue Vancouver, B.C. Canada V6J 1N5 Tel.: 604-734-8822, Fax: 604-734-8842 Email: <a href="mailto:info@glotmansimpson.com">info@glotmansimpson.com</a>	September 9 <sup>th</sup> , 2002. Issued for structural permit.  April 30 <sup>th</sup> , 2003. Revisions prior construction  December 3 <sup>rd</sup> , 2003. Issued for building permit
Mechanical M-2.01, and M-2.04 to M-2.35 M-4.01 M-5.01 to M-5.04 M-6.01 M-7.01	Reinbold Engineering Group Contact: Jason Edey B19A, 6020 2 <sup>nd</sup> St. S.E. Calgary, Alberta T2H 2L8 Tel.: 403-509-1039, Fax: 403-509-1037 Email: <a href="mailto:jasone@reinbold-eg.ab.ca">jasone@reinbold-eg.ab.ca</a>	April 23 <sup>rd</sup> , 2002. Issued for development permit  July 18 <sup>th</sup> , 2003. Issued for construction
Electrical	Udeck Designs Ltd.	January, 2003



E-1 to E-12	Contact: Ed Dueck 5749 Brenner Cres. N.W. Calgary, Alberta T2L 1Z3 Tel.: 403-282-9877, Fax: 403-282-9877 Email: <a href="mailto:udeckdesigns@shaw.ca">udeckdesigns@shaw.ca</a>	
Sprinkler	B. Clarke Engineering PO Box 1486 Summerland, BC Tel: 250-494-9518 Fax: 250-494-9568	October 16 <sup>th</sup> , 2003. Received from the City of Kelowna
Geothermal	Yoneda & Associates 200-1190 Melville St. Vancouver, BC V6E 3W1 Tel: 604-684-3412	July 17 <sup>th</sup> , 2003. Issued for construction

These plans were not marked “as-built,” which limits their usefulness. There are several areas where obvious deviation exists between the actual construction and the proposal on the plans. This is not uncommon as changes are regularly made at the time of construction.

The plans were reviewed for general information only. The plans were not reviewed to ascertain fidelity of construction, verify building code compliance, or for the purposes of design analysis.

## 2. Component description

In this section, the common area components included in this study are listed, along with a description and recommendations for eventual repair or replacement. On-site conditions that may have an effect on life expectancy or performance are also noted, where applicable.

Improvements to these conditions will help to extend the life expectancy of the components.

Component costs are given in 2019 dollars. They represent an estimated amount for component replacement with no upgrade or modification.

### 2.1 Structure and Parking Garage

The buildings consist of wood and concrete structure; wood and steel stud framing; on a cast in place concrete foundation. The parkade is cast in place concrete structure. These structures have an anticipated lifespan that exceeds 50 years and as such are not included in the depreciation reporting. The metal mechanized overhead doors function well. Replacement of drive motor is every 20 years and up to 25 years when well oiled/ maintained. The gas detectors appeared functional.

The tower roof structure is metal Q deck on steel and wood framing. Interior walls are likely wood/ steel stud framed. Firewalls are concrete/ concrete block (mostly concealed). Replacement timelines exceed the 30-year capture period. There is no budget for significant repairs to the structure. The concept of seismic restraint is identified in the drawings but not defined in scope. This is a specialty engineering subject that is not included in this report.

### **2.1.1 Waterproofing**

The above grade plaza supports pedestrian walks, gardens, swimming pool/ hot tub, and the tennis court. There is no indication in the drawings regarding a waterproof membrane installed underneath these elements. Exterior above grade driving (parkade) surfaces are considered surfaces sealed only. The waterproofing methods include epoxy painted surfaces on the second floor parkade and waterproof membrane under landscaping areas (per information gathered from building manager). There appears to be no waterproof membrane under the concrete portions of the plaza level and as such is considered surface sealed only.

It was brought to our attention that the waterproof membrane below portions of landscaping was replaced approximately 12 years ago. No other water seepage issues are known rather than water leaks in the concrete ceiling of the 2<sup>nd</sup> level of the parkade. Repairs to the concrete slab above the 2<sup>nd</sup> level of the parkade have been made through injection concrete 3-5 years prior. The pool area resurfacing work by Strata has helped to prolong the deck surface but additional cracking and spalling necessitates a complete renewal in the next few years. A budget of \$50,000 has been allocated for 2022. Product and installation research is required to verify costs and timeline.

The study remains the same and allows \$115,561 for replacement of the waterproof membrane under landscaped areas in years 2026 and 2028 (\$17,334 and \$98,227 respectively). The \$158,135 allowance has been extended to 2025 and 2040 for renewal of the waterproof floor coat in the 2<sup>nd</sup> level of the parkade as the extent of wear has not magnified over the past 3 years. An additional \$5,000 is allowed for repairs to the waterproofing of concrete ceiling cracks in the 2<sup>nd</sup> level of the parkade at 3 year increments.

### **2.1.2 Suspended slab**

The parkade slabs have no traffic topping with replacement of concrete structure exceeding 50 years. As such, replacement value has not been addressed. Waterproofing is addressed above.

### **2.1.3 Concrete/ Asphalt structures**

There are no asphalt structures. Surfaces are sealed textured concrete. Minor repairs to open cracks and spalled areas have been conducted recently to prevent further damage. This cost is considered part of the operation and maintenance budget and is not included in the study.

Proper sealing of exterior concrete surfaces on a yearly basis should provide the longevity expected from exterior concrete structures under normal operation conditions.

#### **2.1.4 Concrete exterior walking surfaces**

The upper level concrete walking surfaces are showing signs of environmental wear and tear with replacement imminent in the next 3 years. \$ 80,000 has been allocated in 2021 for replacement.

### **2.2 Exterior**

#### **2.2.1 Stucco exterior walls.**

The exterior of the building is externally insulated face shield and acrylic stucco with metal windows (vinyl in townhouses) and metal insulated doors. A cavity drainage system was noted. The surface product has a longevity that exceeds 40 years. There are no significant visible decay, delamination, or deterioration issues observed or noted; and as such replacement has not been incorporated into the study. Localized surface damages at ground level should be repaired from the O & M budget to maintain integrity of the building envelope.

#### **2.2.2 Balcony slabs**

The balcony slabs are considered part of the building structure with a life expectancy that exceeds 50 years. As such replacement is not considered in this study. Per building manager, balcony surfaces/ waterproofing are condo owners' responsibility, and as such are excluded from this study.

#### **2.2.3 Windows**

The original double pane metal windows for the tower and vinyl windows for the townhouses are in place functional. Per building manager, glazing failure (thermal crack) has occurred with the small windows at an average of 8 windows per year over a number of years.

The study continues to allow for \$113,609 for common area window glazing replacement in 2026 and 2046. Replacement of a moderate number of thermal cracked windows seasonally is considered an operation and maintenance cost and is not included in the study. The strata is following a one by one replacement strategy which appears to be well managed. The estimated service life of aluminum and vinyl frames is 40 years which is beyond the scope of the study.

## **2.2.4 Stucco control joints and sealants**

The exterior wall system includes horizontal wall drains and vertical control joints. The major component of an EIFS wall system is the flexible joint caulking. Where observed, the caulking generally remains competent and malleable with no planned or expected maintenance requirements in the short term. Localized repairs are considered a part of the O&M of the building.

The study continues to allow \$310,857 for caulking replacement; but has been extended to years 2025 and 2045.

## **2.3 Roof**

### **2.3.1 Main sloped roofs and flat roofs**

The roof structure and membrane is essentially concealed from view; other than metal Q deck and structural steel observed at the mezzanine room at the top of the tower; and perimeter concrete tile roof membrane at the townhouse section and where exposed to view at the tower mezzanine. Metal chimneys and vents protrusions are in good functional condition where observed. Flat roof sections are protected with modified bitumen membranes.

This study increases the allowance to \$10,000 for waterproof membrane replacement of the flat roof sections in year 2026 with a 35-year replacement schedule. Both steel and concrete tile roofs are estimated to have more than a 30-year life remaining and as such replacement costs have not been included in this study. Replacement budgeting will likely be included in the next depreciation study.

## **2.4 Site**

### **2.4.1 Swimming pools**

The indoor and outdoor swimming pool and hot tub tank surfaces are painted concrete in good functional condition. It was confirmed that concrete surfaces are sealed on a yearly basis. Minor repairs to concrete are considered part of the O&M budget. This maintenance should provide the concrete elements with a service life that extends beyond the scope of this study.

The outdoor pool surface exhibits significant cracking with some spalling. The site manager notes that this has been going on for some time with general patching and sealing being adequate to date. The study will start to compile funds for a complete surface renewal within the next 5 years at \$10,000 per year. A design solution and pricing should be sought in the coming year.

## **2.4.2 Tennis court**

The tennis court surface is wearing but remains functional. This study increases the allowance to \$15,000 for resurfacing the tennis court, but now commencing in 2022 and then at 15-year increments. The study continues to allow \$10,263 for tennis court fence replacement in 2025 and then in 2045. There are no significant wear and tear issues noted at this time other than localized cracks that have in the past allowed moisture to drip on cars below. Localized Xypex injections to impede seepage have been sufficient to date.

## **2.5 Interior components**

### **2.5.1 Paint and ceramics**

Interior common walls are in good physical condition with no intention to expend funds in the near term. The previous contingency amount of \$62,606 at 10-year increments for the periodic repainting of the interior wall finishes in the hallways has been removed as the maintainers intend to continue a yearly painting program within the O & M budget.

Although there are no plans for any significant improvements or renovations, the study continues to allow \$18,459 for repainting of the walls and ceilings in the indoor swimming pool area in years 2021 and 2036. A budget of \$33,676 for indoor pool room ceramic renewal in 3 years has now been modified to \$12,000 in 2020 for the sauna and 30,000 for the indoor pool floor ceramics in 2024.

### **2.5.2 Common areas floor replacement**

The common areas floor surfaces remain in good functional condition with no plans for upgrades or renovations. Additionally, since there are no significant wear issues the allowance of \$34,814 remains for year 2040 for renewal of the carpet and ceiling of common area rooms (e.g., media room, party room, etc.), with \$85,840 allocated in years 2027, 2037 and 2047 for renewal of the hallways/ corridors carpet, and \$28,910 in year 2030 for renewal of the ceramic floor in foyer/ hallway areas.

### **2.5.3 Common area washrooms**

There are common areas washrooms located in the third floor of building 3.

The study does not contemplate renewal or major renovation of the common area washrooms located in the 3<sup>rd</sup> level within the 30-year scope of this study.

## **2.6 Electrical components**

### **2.6.1 Exterior lighting**

There are exterior light poles located throughout the plaza area. The study allows \$12,500 for the eventual replacement of these light fixtures in years 2020 and 2035.

### **2.6.2 Emergency generator**

There is a 250 kW emergency generator located in the ground floor of building 4.

The study continues to allow \$105,795 for the eventual replacement of the emergency generator in year 2024.

### **2.6.3 Common area light fixtures**

There are over 300 incandescent light fixtures in the hallways/ corridors and common areas, as well as over 100 fluorescent light fixtures in the parkade. New technology now does not require the replacement of fixtures to obtain energy efficient LED quality lighting. As such, the allowances have been reduced to \$ 10,000 a commencing 2021 and every 3 years thereafter to replace defective light fixtures.

### **2.6.4 Electrical switchgear**

The study continues to allow \$28,679 for electrical switchgear rehabilitation in year 2033.

### **2.6.5 Electrical panels**

There are numerous electrical panels in various mechanical and electrical rooms.

While replacement of all these panels will not likely be necessary within the timeframe of this study, a contingency amount of \$2,868 yearly for minor rehabilitation is allowed for commencing in year 2036.

## **2.6.6 Entrance communicator panel**

There is an entrance communicator panel at the front entrance of building 3 (tower) which remains fully operational. The study continues to allow \$4,009 for the eventual replacement of this communicator panel extended to years 2025 and 2045.

## **2.6.7 Security cameras**

There are 16 closed-circuit cameras located throughout the buildings. New technology has eliminated the need for expensive equipment replacement costs. As such, the study allowances have been reduced to \$1,500 for 2020 and every second year thereafter.

## **2.6.8 Transformers**

There are 8 transformers located in mechanical and electrical rooms throughout the buildings, mostly divided between buildings 3 and 4.

The study continues to allow \$39,800 for the eventual replacement of these transformers in year 2031.

## **2.7 Mechanical**

### **Heating system**

The tower building and townhouses are heated and cooled by ground-based heat pumps and gas fired hot water boilers and individual in-suite ceiling mounted heating and cooling air handling units. There is a common area gas fired HVAC unit that does not use ground-based geothermal energy to preheat/cool the circulating water.

The geothermal system is separately identified in the financial statements for the strata with a reserve value of over \$2.4 million dollars. The actual value or replacement value or cost allocation requirements for this part of the building heating cooling system are beyond the scope of this study, but per Strata manager, the geothermal reserve fund, the yearly contribution, and the existing loan payments that will be available after the loan is paid off in 2032 has been incorporated in the capital cost assessment protocol of the CRF.

### **2.7.1 Domestic hot water boilers**

Hot water is provided to the townhouses and first seven floors of the tower using geothermal heat with natural gas top up from 2 (2004 + 2013) 80-gallon hot water tanks and 2 2004 storage tanks. The remaining tower suites are provided hot water by way of 2 ganged gas fired hot water tanks (2 @ 2013) plus two 2004 storage tanks on the mezzanine level. A boiler has been replaced and there is a replacement for the oldest unit in storage. The units are in good functional order. As such the replacement timeline has been adjusted.

An allowance of \$34,000 for replacement of one hot water tank unit and 3 storage units in 2021 and 2041, and \$ 30,000 for 3 hot water tanks in 2030 and 2045 has been made.

### **2.7.2 Makeup air units**

There is an original central fresh air (Engineered Air) makeup unit in the tower. The common area makeup air is used in conjunction with a newer 1.1 MBU gas-fired heating system situated in the tower mezzanine. This equipment has recently been replaced along with the heat exchangers. The individual suite laundries and washroom and kitchen exhaust fans exhaust through the exterior suite walls. Most appear to be ganged together. Due to US purchase requirements and the exchange rate, the study has increased the allowance to \$100,000 for replacement of the make-up air units commencing in year 2026.

The townhouses exhaust air to the exterior through source located exhaust fans which are considered owner maintained. In suite heat/ac exchanger units are being replaced on a when required basis under an O&M budget. To date they replace 1 year on average.

### **2.7.3 Pumps and controls**

Various pumps are installed throughout the building, mostly located in mechanical rooms. Commercially available and engineered pumps are utilized by the geothermal system and mechanical system. The majority of pumps are original with some rebuilt as required. As such, for the next depreciation report, the Strata should obtain a capital cost upgrade plan for review and adoption by the HVAC maintenance contractor.

In the meantime, the study continues to set the allowance of \$152,000 for the eventual replacement of the pumps commencing in 2023 and 2043.

### **2.7.4 Domestic hot water pipe rehabilitation**

It is considered that major repairs or replacement of the domestic hot water piping within the building will not be necessary within the timeframe of this study. An allowance for major repairs to the piping has been made.



### **2.7.5 Natural gas piping**

The replacement of the natural gas piping for the building is not considered within the timeframe of this study.

### **2.7.6 Exhaust fans**

There are numerous exhaust fans throughout the mechanical rooms, parkades and the common areas. The parkade exhaust fans on appear to be controlled by carbon monoxide sensors.

The study continues to allow \$32,450 in year 2026 for the replacement of these exhaust fan units. Ongoing maintenance is not included in this study.

### **2.7.7 Swimming pool heat, pumps and filters**

The swimming pools are heated by geothermal heat from the main heating plant. They have sand type pool filters located in the corresponding mechanical rooms. Pool pumps and filters are existing and soon in need for replacement. The two small electric hot water tanks are rusting should be replaced in the near term under the O&M budget.

The study allows for the replacement of the pool pumps and filters. This contingency is included in section 2.7.3

### **2.7.8 Heat Pumps**

Ground source heat pumps are located throughout the buildings for servicing the common areas. The study previously allowed \$124,815 for replacement of these common area heat pumps every 20 years commencing in year 2026. Recently, the Strata has deferred replacement costs to the Strata Owners as part of the geothermal sale arrangement.

### **2.7.9 Unit heaters**

There are several unit heaters providing heat to mechanical/ electrical rooms in the buildings. The study continues to allow \$80,659 every 15 years for the ongoing replacement costs for these common area unit heaters but commencing in year 2023.

### **2.7.10 Underground site services rehabilitation**

There are numerous underground site services at the property, including storm sewers, sanitary sewers, gas lines, domestic water supply lines, cable TV, telephone and hydro lines.

While a complete replacement of these site services will not likely be necessary within the timeframe of this study, an allowance for major rehabilitation to these services is included.

Regular cleaning of the catch basins on the property is not included in this study as it is considered regular O & M.

## **2.8 Fire Protection**

### **2.8.1 Fire alarm system replacement**

The fire alarm system remains fully operational with no identified concerns by the testing agency. As such, the study allowance has been maintained at \$78,000 but extended to year 2028 for a major retrofit/ replacement of the fire alarm panel and system.

### **2.8.2 Fire pump replacement**

The study continues to allow \$43,000 in year 2031 for the replacement of the fire pump.

### **2.8.3 Sprinklers contingency**

Sprinkler systems have an estimated service life of 50 years. The study continues to allow \$80,000 in year 2037 for replacement of defective or damaged sprinkler heads.

### **2.8.4 Fire alarms and safety system components**

Fire extinguishers, smoke detectors, pull stations and carbon monoxide detectors are located throughout the buildings to safeguard the occupants. These components are interconnected to the fire alarm system and the parkade exhaust fans. The 70 odd fire extinguishers have been replaced over the past few years. The study allows \$7,000 for replacement of the fire extinguishers every 10 years commencing 2023; and \$36,000 for the replacement of the 107 smoke detectors in each of years 2021 and 2035. It also allows \$15,000 in year 2036 for the replacement of the pull stations, and \$16,000 in each of the years 2021 and 2036 for the replacement of the carbon monoxide detectors.

## 2.9 Elevators

### 2.9.1 Elevators modernization

There are two elevators in the tower. These elevators are traction-type with steel cables and appear original.

The study continues to allow \$250,000 but in both years 2032 and 2034 for modernization of the elevators. Commencing three years from now, the elevator maintenance contractor should provide a capital cost upgrade plan for review and adoption.

## 3.0 Depreciation Report

The depreciation report updates have been reduced to \$ 4,000 every three years commencing 2019.

## 3. Capital renewal projections

Appendix A contains the capital renewal projections for the property. This chart summarizes the remaining life expectancy and replacement cost of the components, and provides a starting point for calculating what the annual contributions should be. It should be noted that the calculations in this table do not contemplate interest or inflation.

The following explains each of the terms in the Capital Renewal Projections chart:

Term	Definition
Report reference number	Report reference for the description of the item.
Item description	Component being replaced or rehabilitated.
Year of acquisition	Year that the component was acquired. This year is based on known information or is estimated where no information was available.
Present age	Present age of the system or component.
Quantity	Quantity or number of components noted from our site survey or document review.
Units	Corresponding units for the quantities noted from the site survey or from the

	document review.
Typical life	Typical life expectancy of the component.
Estimated life remaining	Estimated remaining life of the component, based on the on-site conditions.
Present cost of replacement	Present replacement cost, or cost for major rehabilitation, of the item.

#### 4. Schedule of renewals

The charts in Appendix C shows a projection of what the expenditures are anticipated to be each year, over the next 30 years, for major repairs and replacements of the common element components. These figures are provided in present dollar values.

#### 5. Reserve fund cash flow projections

The chart in Appendix B shows the reserve fund balance over the next 30 years, at the recommended contribution level. These values incorporate an assumed annual inflation rate and the given interest rate for the Reserve Fund investment. The following was given by the condominium corporation:

- Present contingency reserve fund (CRF) Aug 31.19 balance: **\$ 972,388**
- Contingency reserve fund (including geothermal RF) balance: **\$ 1,103,795**
- Average reserve fund rate of return: **1.5 % ESTIMATED**
- The assumed annual inflation rate for this report: **1.9%**

The following provides an explanation for each of the terms in the cash flow projections:

Term	Definition
Opening balance	Amount of money in the reserve fund at the beginning of the year.
Annual contribution	Annual contribution to the reserve fund. The contribution amounts are increased annually by the inflation rate.
Increase over previous year	Increase in the annual contribution is over the previous year.

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Catch-up amount	Amount of additional funds required to overcome any shortfall in the fund. These amounts are based on the capital renewal projections.
Total contributions	Sum of the annual contribution and the catch-up amount.
Interest income	In years without expenditure, this is the interest generated by the opening balance for the entire year, plus interest generated by the annual contribution. In years where there is expenditure, the interest is calculated based on the expenditure occurring at the half-way point in the year. The interest income is calculated based on the given rate of return.
Renewal costs	These two columns show the expenditures required, as per the capital renewal projections. These figures are given in 2012 dollars and in inflated dollars, to the year of expenditure.
Closing balance	This is the balance of the fund at the end of the year. The closing balance equals the total contribution, plus the interest income, less any renewal costs in that year.

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## 6. Data analysis

The goal of the study is to ensure there are sufficient funds available for major repairs and replacements. However, since the study covers a finite time period, it is equally important to know what the balance should approximately be at the end of the study period. A balance that is too low at the end of the study period could penalize future owners, as insufficient funds may have been accumulated by the present owners. To have too high a balance at the end of the study period would penalize the present owners.

To ensure the closing balance at the end of the study period is appropriate, the cash flow was projected into the future. The Reserve Fund balance was verified not to fall below 25% of the operating fund for the year (per Strata Act) and not to become excessive at the recommended contribution level.

The recommended cash flow scenarios in Appendix C illustrate this cash flow, with periodic increases in the contribution levels, indexed to inflation. The timing of these increases was

adjusted to the timing for major expenditures and to prevent it from dropping below 25% of the annual operations and maintenance budget.

The interest rate and inflation rate used in the study were taken from that published by the Bank of Canada.

Appendix B contains a schedule of renewals to show when major expenditures take place, over the next 30 years.

## **7. Closing comments**

The information contained in this study is time-sensitive. We recommend this study be updated every three years. Please contact our office in three years hence to conduct an update report.

We trust this information is of value. Should you have any questions, please feel free to contact me directly.

Sincerely,

*Craig Hostland*

Craig Hostland, P.Eng.

## **APPENDIX A: CAPITAL RENEWAL PROJECTIONS**

Sunset Waterfront

1128 Sunset Drive, Kelowna BC

**Appendix A: Capital Renewal Projections**

PROJECT NAME: Sunset Waterfront. 1128 Sunset Drive, Kelowna, BC.

Repor Ref. #	Item Description	Year of Acquisition	Present Age	Qty	Units	Typical Life (years)	Est. Life Remaining	Present Cost of Replacement
<b>Architectural</b>								
2.1.1a	Pool resurfacing contingency	2007	12	1635	sq. ft	20	8	\$50,000
2.1.1b	Plaza waterproof membrane contingency	2006	13	9263	sq. ft	20	7	\$115,561
2.1.1c	Parkade slab waterproof renew/crack control	2006	13	36900	sq. ft	20	7	\$158,135
2.1.4	Exterior walking surfaces	2006	13	1	set	15	2	\$80,000
2.2.3	Window glazing replacement	2006	13	1702	sq. ft	20	7	\$113,609
2.2.4	Control joint caulking renewal	2006	13	15261	ft	15	2	\$310,857
2.3.1	Flat roofs membrane replacement	2006	13	882	sq.ft	20	7	\$10,000
2.4.1	Exterior pool deck renewal	2006	13		LS	15	2	\$50,000
2.4.2a	Tennis Court resurfacing	2006	13	1	set	5	0	\$15,000
2.4.2b	Tennis court fence replacement	2006	13	290	ft	15	2	\$10,263
2.5.1a	Interior painting	2006	13	47072	sq.ft	20	7	\$62,606
2.5.1b	Indoor pool room paint renewal	2006	13	4448	sq.ft	15	2	\$18,459
2.5.2a	Indoor pool room ceramic renewal	2006	13	2110	sq.ft	25	12	\$42,000
2.5.2b	Common area rooms redecoration	2010	9	2823	sq.ft	25	16	\$34,814
2.5.3a	Carpet replacement	2010	9	12696.2	sq.ft	20	11	\$85,840
2.5.3b	Ceramic replacement	2006	13	2753	sq.ft	20	7	\$28,910
<b>Electrical</b>								
2.6.1	Common areas exterior lights replacement	2006	13	1	set	15	2	\$12,500
2.6.2	Emergency generator replacement	2006	13	1	each	20	7	\$105,795
2.6.3a	Common areas light fixture replacement	2006	13	1	set	14	1	\$1,000
2.6.3b	Parkades light fixtures replacement	2006	13	1	set	13	0	\$2,500
2.6.4	Electrical switch gear rehabilitation	2006	13	1	set	40	27	\$28,679
2.6.5	Electrical panels rehabilitation	2006	13	1	set	30	17	\$2,868
2.6.6	Entrance communicator replacement	2006	13	1	each	17	4	\$4,009
2.6.7	Security cameras replacement	2006	13	16	each	15	2	\$1,500
2.6.8	Transformers replacement	2006	13	1	set	25	12	\$39,800
<b>Mechanical</b>								
2.7.1	Domest hot water tank replace (ave)	2012	7	4	each	15	8	\$64,000
2.7.2	Make-up air unit replacement	2006	13	4	each	20	7	\$100,000
2.7.3	Pumps and controls replacement contingency	2006	13	1	set	10	-3	\$152,000
2.7.6	Exhaust fans replacement	2006	13	1	set	20	7	\$32,450
2.7.8	Heat pumps replacement	2006	13					\$0
2.7.9	Unit heaters contingency	2006	13	1	set	15	2	\$80,659
<b>Fire Protection</b>								
2.8.1	Fire alarm system replacement	2006	13	1	each	20	7	\$78,000
2.8.2	Fire pump replacement	2006	13	1	each	25	12	\$43,000
2.8.3	Sprinklers replacement	2006	13	294	each	50	37	\$80,000
2.8.4a	Fire extinguishers	2006	13	52	each	15	2	\$7,000
2.8.4b	Fire alarm smoke detector	2006	13	107	each	15	2	\$36,000
2.8.4c	Fire alarm pull station	2006	13	62	each	30	17	\$15,000
2.8.4d	Carbon Monoxide sensors	2006	13	10	each	15	2	\$16,000
<b>Elevators</b>								
EV1a	Elevators modernization	2006	13	2	each	25	12	\$500,000
<b>Engineering</b>								
Eng1	Reserve Fund Study Preparation	2006		1	each	3	3	\$4,000
Geothermal	Geothermal investment account balance							\$1,900,000

**Note: These costs do not take into account routine maintenance and outstanding repair costs.  
All repairs/ replacements to be covered 100% by the Reserve Fund.**



## **APPENDIX B: SCHEDULE OF RENEWALS**

Sunset Waterfront

1128 Sunset Drive, Kelowna BC

**Appendix B: Capital Renewal Projections**

PROJECT NAME: Sunset Waterfront. 1128 Sunset Drive, Kelowna, BC.

Repor Ref. #	Item Description	Years out										
		Immed.	1	2	3	4	5	6	7	8	9	10
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Architectural</b>												
2.1.1a	Pool resurfacing contingency				\$50,000							\$50,000
2.1.1b	Plaza waterproof membrane contingency								\$17,334		\$98,227	
2.1.1c	Parkade slab waterproof renew/crack control		\$5,000			\$5,000		\$158,135	\$5,000			\$5,000
2.1.4	Exterior walking surfaces			\$80,000								
2.2.3	Window glazing replacement								\$113,609			
2.2.4	Control joint caulking renewal							\$310,857				
2.3.1	Flat roofs membrane replacement								\$10,000			
2.4.1	Exterior pool deck renewal		\$10,000	\$10,000	\$10,000	\$10,000	\$10,000					
2.4.2a	Tennis Court resurfacing				\$15,000							\$0
2.4.2b	Tennis court fence replacement							\$10,263				
2.5.1a	Interior painting											
2.5.1b	Indoor pool room paint renewal			\$18,459								
2.5.2a	Indoor pool room ceramic renewal		\$12,000				\$30,000					
2.5.2b	Common area rooms redecoration											
2.5.3a	Carpet replacement									\$85,840		
2.5.3b	Ceramic replacement											
<b>Electrical</b>												
2.6.1	Common area exterior lights replacement		\$12,500									\$12,500
2.6.2	Emergency generator replacement						\$105,795					
2.6.3	Common areas light fixture replacement			\$10,000			\$10,000			\$10,000		
2.6.5	Parkades light fixtures replacement								\$2,500			
2.6.4	Electrical switch gear rehabilitation											
2.6.5	Electrical panels rehabilitation											
2.6.6	Entrance communicator replacement							\$4,009				
2.6.7	Security cameras replacement		\$1,500									
2.6.8	Transformers contingency											
<b>Mechanical</b>												
2.7.1	Domestic hot water tank replacement			\$34,000								
2.7.2	Make-up air unit replacement								\$100,000			
2.7.3	Pumps and controls contingency					\$152,000						
2.7.6	Exhaust fans replacement								\$32,450			
2.7.8	Heat pumps replacement											
2.7.9	Unit heater replacement contingency					\$80,659						
<b>Fire Protection</b>												
2.8.1	Fire alarm system replacement										\$78,000	
2.8.2	Fire pump replacement											
2.8.3	Sprinklers contingency											
2.8.4a	Fire extinguishers					\$7,000			7000			\$7,000
2.8.4b	Fire alarm smoke detector			\$36,000								
2.8.4c	Fire alarm pull station											
2.8.4d	Carbon Monoxide sensors			\$16,000								
<b>Elevators</b>												
EV1a	Elevators modernization											
<b>Engineering</b>												
Eng1	Reserve Fund Study Preparation	\$4,000			\$4,000			\$4,000			\$4,000	
<b>TOTALS</b>		\$4,000	\$41,000	\$204,459	\$79,000	\$254,659	\$155,795	\$487,264	\$287,893	\$95,840	\$192,727	\$62,000
<p align="center"><b>Note: These costs do not take into account routine maintenance and outstanding repair costs. All large replacements to be covered by the Reserve Fund.</b></p>												

Appendix B: Capital Renewal Projections											
PROJECT NAME: Sunset Waterfront. 1128 Sunset Drive, Kelowna, BC.											
Repor Ref. #	Item Description	Years out									
		11 2030	12 2031	13 2032	14 2033	15 2034	16 2035	17 2036	18 2037	19 2038	20 2039
<b>Architectural</b>											
2.1.1a	Pool resurfacing contingency										
2.1.1b	Plaza waterproof membrane contingency										
2.1.1c	Parkade slab waterproof renew/crack control			\$5,000			\$5,000			\$5,000	
2.1.4	Exterior walking surfaces										
2.2.3	Window glazing replacement										
2.2.4	Control joint caulking renewal										
2.3.1	Flat roofs membrane replacement										
2.4.1	Exterior pool deck renewal										
2.4.2a	Tennis Court resurfacing					\$0			\$15,000		\$0
2.4.2b	Tennis court fence replacement										
2.5.1a	Interior painting										
2.5.1b	Indoor pool room paint renewal							\$18,459			
2.5.2a	Indoor pool room ceramic renewal										
2.5.2b	Common area rooms redecoration										
2.5.3a	Carpet replacement								\$85,840		
2.5.3b	Ceramic replacement	\$28,910									
<b>Electrical</b>											
2.6.1	Common area exterior lights replacement						\$12,500				
2.6.2	Emergency generator replacement										
2.6.3	Common areas light fixture replacement	\$10,000			\$10,000			\$10,000			\$10,000
2.6.5	Parkades light fixtures replacement										\$2,500
2.6.4	Electrical switch gear rehabilitation				\$28,679						
2.6.5	Electrical panels rehabilitation							\$2,868	\$2,868	\$2,868	\$2,868
2.6.6	Entrance communicator replacement										
2.6.7	Security cameras replacement										
2.6.8	Transformers contingency		\$39,800								
<b>Mechanical</b>											
2.7.1	Domestic hot water tank replacement	\$30,000									
2.7.2	Make-up air unit replacement										
2.7.3	Pumps and controls contingency										
2.7.6	Exhaust fans replacement										
2.7.8	Heat pumps replacement										
2.7.9	Unit heater replacement contingency									\$80,659	
<b>Fire Protection</b>											
2.8.1	Fire alarm system replacement										
2.8.2	Fire pump replacement		\$43,000								
2.8.3	Sprinklers contingency								\$80,000		
2.8.4a	Fire extinguishers			\$7,000			\$7,000			\$7,000	
2.8.4b	Fire alarm smoke detector						\$36,000				
2.8.4c	Fire alarm pull station							\$15,000			
2.8.4d	Carbon Monoxide sensors							\$16,000			
<b>Elevators</b>											
EV1a	Elevators modernization			\$250,000		\$250,000					
<b>Engineering</b>											
Eng1	Reserve Fund Study Preparation		\$4,000			\$4,000			\$4,000		
TOTALS		\$68,910	\$86,800	\$262,000	\$38,679	\$254,000	\$60,500	\$62,327	\$187,708	\$95,527	\$15,368
<b>Note: These costs do not take into account routine maintenance and outstanding repair costs.</b> <b>All large replacements to be covered by the Reserve Fund.</b>											

Appendix B: Capital Renewal Projections											
PROJECT NAME: Sunset Waterfront. 1128 Sunset Drive, Kelowna, BC.											
Repor Ref. #	Item Description	Years out									
		21	22	23	24	25	26	27	28	29	30
		2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
<b>Architectural</b>											
2.1.1a	Pool resurfacing contingency										
2.1.1b	Plaza waterproof membrane contingency										
2.1.1c	Parkade slab waterproof renew/crack control	\$158,135	\$ 5,000			\$5,000			\$5,000		
2.1.4	Exterior walking surfaces										
2.2.3	Window glazing replacement							\$113,609			
2.2.4	Control joint caulking renewal						\$310,857				
2.3.1	Flat roofs membrane replacement										
2.4.1	Exterior pool deck renewal										
2.4.2a	Tennis Court resurfacing					\$0					\$0
2.4.2b	Tennis court fence replacement				\$0		\$10,263				
2.5.1a	Interior painting										
2.5.1b	Indoor pool room paint renewal				\$0						
2.5.2a	Indoor pool room ceramic renewal				\$0						
2.5.2b	Common area rooms redecoration										
2.5.3a	Carpet replacement								\$85,840		
2.5.3b	Ceramic replacement										
<b>Electrical</b>											
2.6.1	Common area exterior lights replacement										
2.6.2	Emergency generator replacement										
2.6.3	Common areas light fixture replacement			\$10,000			\$10,000			\$10,000	
2.6.5	Parkades light fixtures replacement										
2.6.4	Electrical switch gear rehabilitation			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2.6.5	Electrical panels rehabilitation	\$2,868	\$ 2,868	\$2,868	\$2,868	\$2,868	\$2,868	\$2,868	\$2,868	\$2,868	\$2,868
2.6.6	Entrance communicator replacement						\$ 4,009		\$0		
2.6.7	Security cameras replacement				\$0						
2.6.8	Transformers contingency										
<b>Mechanical</b>											
2.7.1	Domestic hot water tank replacement		\$ 34,000				\$30,000				
2.7.2	Make-up air unit replacement										
2.7.3	Pumps and controls contingency				\$152,000						
2.7.6	Exhaust fans replacement										
2.7.8	Heat pumps replacement										
2.7.9	Unit heater replacement contingency										
<b>Fire Protection</b>											
2.8.1	Fire alarm system replacement										
2.8.2	Fire pump replacement										
2.8.3	Sprinklers contingency										
2.8.4a	Fire extinguishers		\$ 7,000		\$0	\$7,000			\$7,000		
2.8.4b	Fire alarm smoke detector				\$0						
2.8.4c	Fire alarm pull station				\$15,000						
2.8.4d	Carbon Monoxide sensors				\$0						
<b>Elevators</b>											
EV1a	Elevators modernization										
<b>Engineering</b>											
Eng1	Reserve Fund Study Preparation	\$4,000			\$4,000			\$4,000			\$4,000
TOTALS		\$165,003	\$48,868	\$12,868	\$173,868	\$14,868	\$367,997	\$120,477	\$100,708	\$12,868	\$6,868
Note: These costs do not take into account routine maintenance and outstanding repair costs.											
All large replacements to be covered by the Reserve Fund.											

## **APPENDIX C: RESERVE FUND CASH FLOW PROJECTIONS**

Sunset Waterfront  
1128 Sunset Drive, Kelowna BC

**Appendix C: Reserve Fund Cash Flow Projections**

**C1: at Current Contribution Level with yearly Geotherm revenue included**

PROJECT NAME: Sunset Waterfront. 1128 Sunset Drive, Kelowna, BC.

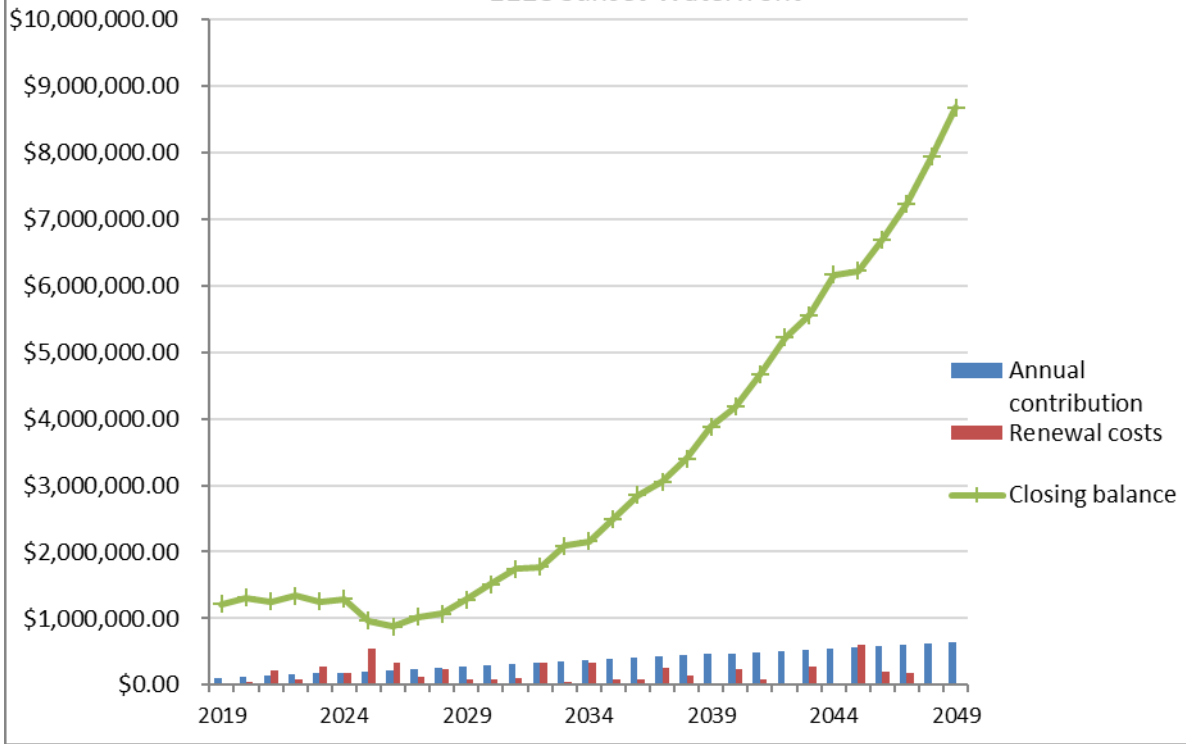
Inflation Rate: 1.90%

Interest Rate: 1.50%

2019 Annual Contribution: 98000 + 18,000

Year	Opening balance	Annual contribution	Increase over previous year	Catch-up amount	Total contribution	Interest income	Renewal costs		Closing balance
							2019	Inflated (\$)	
2019	\$1,103,795.00	\$98,000.00	0.0%		\$98,000.00	\$16,556.93	\$4,000.00	\$4,000.00	\$1,214,351.93
2020	\$1,214,351.93	\$116,000.00	0.0%		\$116,000.00	\$18,215.28	\$41,000.00	\$41,779.00	\$1,306,788.20
2021	\$1,306,788.20	\$134,000.00	0.0%		\$134,000.00	\$19,601.82	\$204,459.00	\$212,302.25	\$1,248,087.78
2022	\$1,248,087.78	\$152,000.00	0.0%		\$152,000.00	\$18,721.32	\$79,000.00	\$83,589.10	\$1,335,219.99
2023	\$1,335,219.99	\$170,000.00	0.0%		\$170,000.00	\$20,028.30	\$254,659.00	\$274,571.70	\$1,250,676.60
2024	\$1,250,676.60	\$188,000.00	0.0%		\$188,000.00	\$18,760.15	\$155,795.00	\$171,168.73	\$1,286,268.01
2025	\$1,286,268.01	\$206,000.00	0.0%		\$206,000.00	\$19,294.02	\$487,264.00	\$545,518.43	\$966,043.60
2026	\$966,043.60	\$224,000.00	0.0%		\$224,000.00	\$14,490.65	\$287,893.00	\$328,435.73	\$876,098.53
2027	\$876,098.53	\$242,000.00	0.0%		\$242,000.00	\$13,141.48	\$95,840.28	\$111,414.46	\$1,019,825.55
2028	\$1,019,825.55	\$260,000.00	0.0%		\$260,000.00	\$15,297.38	\$192,727.00	\$228,302.26	\$1,066,820.67
2029	\$1,066,820.67	\$278,000.00	0.0%		\$278,000.00	\$16,002.31	\$62,000.00	\$74,839.96	\$1,285,983.02
2030	\$1,285,983.02	\$296,000.00	0.0%		\$296,000.00	\$19,289.75	\$68,910.00	\$84,761.43	\$1,516,511.34
2031	\$1,516,511.34	\$314,000.00	0.0%		\$314,000.00	\$22,747.67	\$86,800.00	\$108,795.25	\$1,744,463.76
2032	\$1,744,463.76	\$332,000.00	0.0%		\$332,000.00	\$26,166.96	\$262,000.00	\$334,630.62	\$1,768,000.09
2033	\$1,768,000.09	\$350,000.00	0.0%		\$350,000.00	\$26,520.00	\$38,679.00	\$50,340.07	\$2,094,180.02
2034	\$2,094,180.02	\$368,000.00	0.0%		\$368,000.00	\$31,412.70	\$254,000.00	\$336,857.70	\$2,156,735.02
2035	\$2,156,735.02	\$386,000.00	0.0%		\$386,000.00	\$32,351.03	\$60,500.00	\$81,760.27	\$2,493,325.78
2036	\$2,493,325.78	\$404,000.00	0.0%		\$404,000.00	\$37,399.89	\$62,327.00	\$85,829.65	\$2,848,896.01
2037	\$2,848,896.01	\$422,000.00	0.0%		\$422,000.00	\$42,733.44	\$187,708.28	\$263,401.80	\$3,050,227.65
2038	\$3,050,227.65	\$440,000.00	0.0%		\$440,000.00	\$45,753.41	\$95,527.00	\$136,595.26	\$3,399,385.80
2039	\$3,399,385.80	\$458,000.00	0.0%		\$458,000.00	\$50,990.79	\$15,368.00	\$22,392.42	\$3,885,984.17
2040	\$3,885,984.17	\$476,000.00	0.0%		\$476,000.00	\$58,289.76	\$165,003.00	\$244,990.76	\$4,175,283.17
2041	\$4,175,283.17	\$494,000.00	0.0%		\$494,000.00	\$62,629.25	\$48,868.00	\$73,936.11	\$4,657,976.31
2042	\$4,657,976.31	\$512,000.00	0.0%		\$512,000.00	\$69,869.64	\$12,868.00	\$19,838.89	\$5,220,007.07
2043	\$5,220,007.07	\$530,000.00	0.0%		\$530,000.00	\$78,300.11	\$173,868.00	\$273,149.29	\$5,555,157.88
2044	\$5,555,157.88	\$548,000.00	0.0%		\$548,000.00	\$83,327.37	\$14,868.00	\$23,801.65	\$6,162,683.60
2045	\$6,162,683.60	\$566,000.00	0.0%		\$566,000.00	\$92,440.25	\$367,997.00	\$600,306.52	\$6,220,817.33
2046	\$6,220,817.33	\$584,000.00	0.0%		\$584,000.00	\$93,312.26	\$120,477.00	\$200,265.95	\$6,697,863.64
2047	\$6,697,863.64	\$602,000.00	0.0%		\$602,000.00	\$100,467.95	\$100,708.28	\$170,585.59	\$7,229,746.01
2048	\$7,229,746.01	\$620,000.00	0.0%		\$620,000.00	\$108,446.19	\$12,868.00	\$22,210.71	\$7,935,981.49
2049	\$7,935,981.49	\$638,000.00	0.0%		\$638,000.00	\$119,039.72	\$6,868.00	\$12,079.69	\$8,680,941.52

### Reserve fund cash flow projection at current contribution Level 1128 Sunset Waterfront



**C2: Alternative 1, zero annual increase with Geothermal revenue and reserve included**

PROJECT NAME: Sunset Waterfront. 1128 Sunset Drive, Kelowna, BC.

Inflation Rate: 1.90%

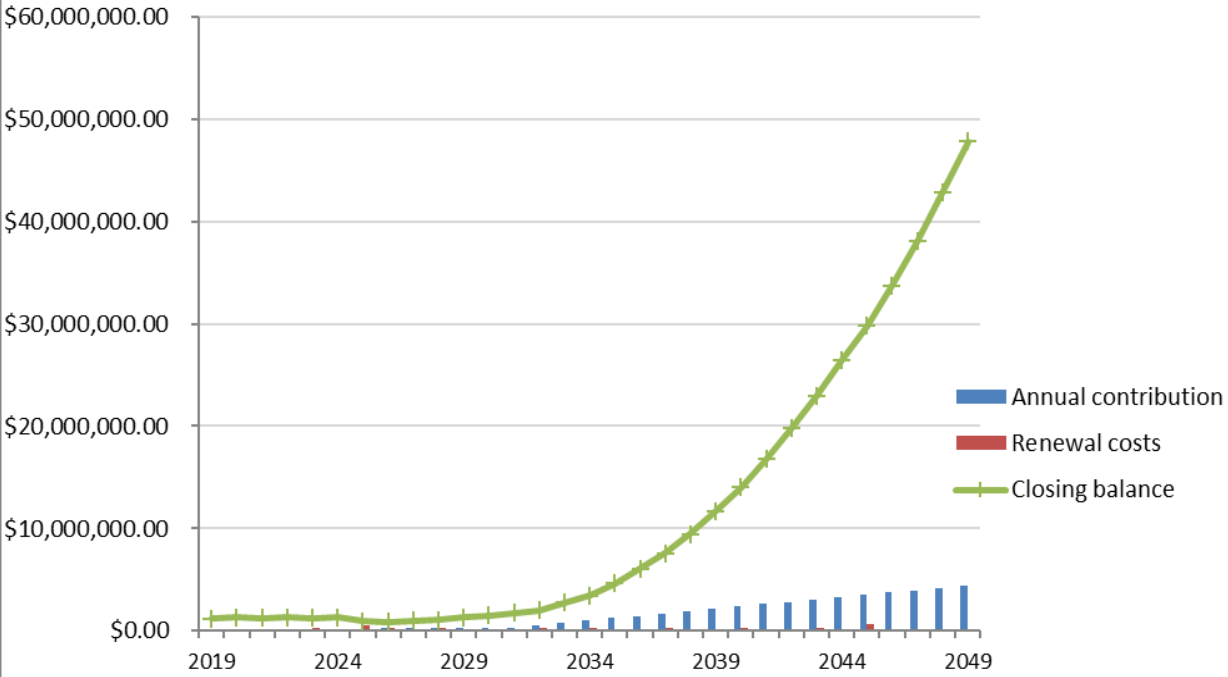
Interest Rate: 1.50%

2019 Annual Contribution: 98000 + 18,000 plus \$210,041 annual commencing 2032

Year	Opening balance	Annual contribution	Increase over previous year	Catch-up amount	Total contribution	Interest income	Renewal costs		Closing balance
							2019 \$	Inflated (\$)	
2019	\$1,103,795.00	\$98,000.00			\$98,000.00	\$16,556.93	\$4,000.00	\$4,000.00	\$1,214,351.93
2020	\$1,214,351.93	\$116,000.00	0.0%		\$116,000.00	\$18,215.28	\$41,000.00	\$41,779.00	\$1,306,788.20
2021	\$1,306,788.20	\$134,000.00	0.0%		\$134,000.00	\$19,601.82	\$204,459.00	\$212,302.25	\$1,248,087.78
2022	\$1,248,087.78	\$152,000.00	0.0%		\$152,000.00	\$18,721.32	\$79,000.00	\$83,589.10	\$1,335,219.99
2023	\$1,335,219.99	\$170,000.00	0.0%		\$170,000.00	\$20,028.30	\$254,659.00	\$274,571.70	\$1,250,676.60
2024	\$1,250,676.60	\$188,000.00	0.0%		\$188,000.00	\$18,760.15	\$155,795.00	\$171,168.73	\$1,286,268.01
2025	\$1,286,268.01	\$206,000.00	0.0%		\$206,000.00	\$19,294.02	\$487,264.00	\$545,518.43	\$966,043.60
2026	\$966,043.60	\$224,000.00	0.0%		\$224,000.00	\$14,490.65	\$287,893.00	\$328,435.73	\$876,098.53
2027	\$876,098.53	\$242,000.00	0.0%		\$242,000.00	\$13,141.48	\$95,840.28	\$111,414.46	\$1,019,825.55
2028	\$1,019,825.55	\$260,000.00	0.0%		\$260,000.00	\$15,297.38	\$192,727.00	\$228,302.26	\$1,066,820.67
2029	\$1,066,820.67	\$278,000.00	0.0%		\$278,000.00	\$16,002.31	\$62,000.00	\$74,839.96	\$1,285,983.02
2030	\$1,285,983.02	\$296,000.00	0.0%		\$296,000.00	\$19,289.75	\$68,910.00	\$84,761.43	\$1,516,511.34
2031	\$1,516,511.34	\$314,000.00	0.0%		\$314,000.00	\$22,747.67	\$86,800.00	\$108,795.25	\$1,744,463.76
2032	\$1,744,463.76	\$542,041.00	0.0%		\$542,041.00	\$26,166.96	\$262,000.00	\$334,630.62	\$1,978,041.09
2033	\$1,978,041.09	\$770,082.00	0.0%		\$770,082.00	\$29,670.62	\$38,679.00	\$50,340.07	\$2,727,453.64
2034	\$2,727,453.64	\$998,123.00	0.0%		\$998,123.00	\$40,911.80	\$254,000.00	\$336,857.70	\$3,429,630.74
2035	\$3,429,630.74	\$1,226,164.00	0.0%		\$1,226,164.00	\$51,444.46	\$60,500.00	\$81,760.27	\$4,625,478.93
2036	\$4,625,478.93	\$1,454,205.00	0.0%		\$1,454,205.00	\$69,382.18	\$62,327.00	\$85,829.65	\$6,063,236.46
2037	\$6,063,236.46	\$1,682,246.00	0.0%		\$1,682,246.00	\$90,948.55	\$187,708.28	\$263,401.80	\$7,573,029.21
2038	\$7,573,029.21	\$1,910,287.00	0.0%		\$1,910,287.00	\$113,595.44	\$95,527.00	\$136,595.26	\$9,460,316.38
2039	\$9,460,316.38	\$2,138,328.00	0.0%		\$2,138,328.00	\$141,904.75	\$15,368.00	\$22,392.42	\$11,718,156.71
2040	\$11,718,156.71	\$2,366,369.00	0.0%		\$2,366,369.00	\$175,772.35	\$165,003.00	\$244,990.76	\$14,015,307.30
2041	\$14,015,307.30	\$2,594,410.00	0.0%		\$2,594,410.00	\$210,229.61	\$48,868.00	\$73,936.11	\$16,746,010.80
2042	\$16,746,010.80	\$2,822,451.00	0.0%		\$2,822,451.00	\$251,190.16	\$12,868.00	\$19,838.89	\$19,799,813.07
2043	\$19,799,813.07	\$3,050,492.00	0.0%		\$3,050,492.00	\$296,997.20	\$173,868.00	\$273,149.29	\$22,874,152.98
2044	\$22,874,152.98	\$3,278,533.00	0.0%		\$3,278,533.00	\$343,112.29	\$14,868.00	\$23,801.65	\$26,471,996.62
2045	\$26,471,996.62	\$3,506,574.00	0.0%		\$3,506,574.00	\$397,079.95	\$367,997.00	\$600,306.52	\$29,775,344.05
2046	\$29,775,344.05	\$3,734,615.00	0.0%		\$3,734,615.00	\$446,630.16	\$120,477.00	\$200,265.95	\$33,756,323.26
2047	\$33,756,323.26	\$3,962,656.00	0.0%		\$3,962,656.00	\$506,344.85	\$100,708.28	\$170,585.59	\$38,054,738.52
2048	\$38,054,738.52	\$4,190,697.00	0.0%		\$4,190,697.00	\$570,821.08	\$12,868.00	\$22,210.71	\$42,794,045.89
2049	\$42,794,045.89	\$4,418,738.00	0.0%		\$4,418,738.00	\$641,910.69	\$6,868.00	\$12,079.69	\$47,842,614.89



### Reserve fund cash flow projection, Alternative 1 1128 Sunset Waterfront



**C3: Alternative 2, 1.5% annual contribution increase with cash calls commencing 2034**

PROJECT NAME: Sunset Waterfront. 1128 Sunset Drive, Kelowna, BC.

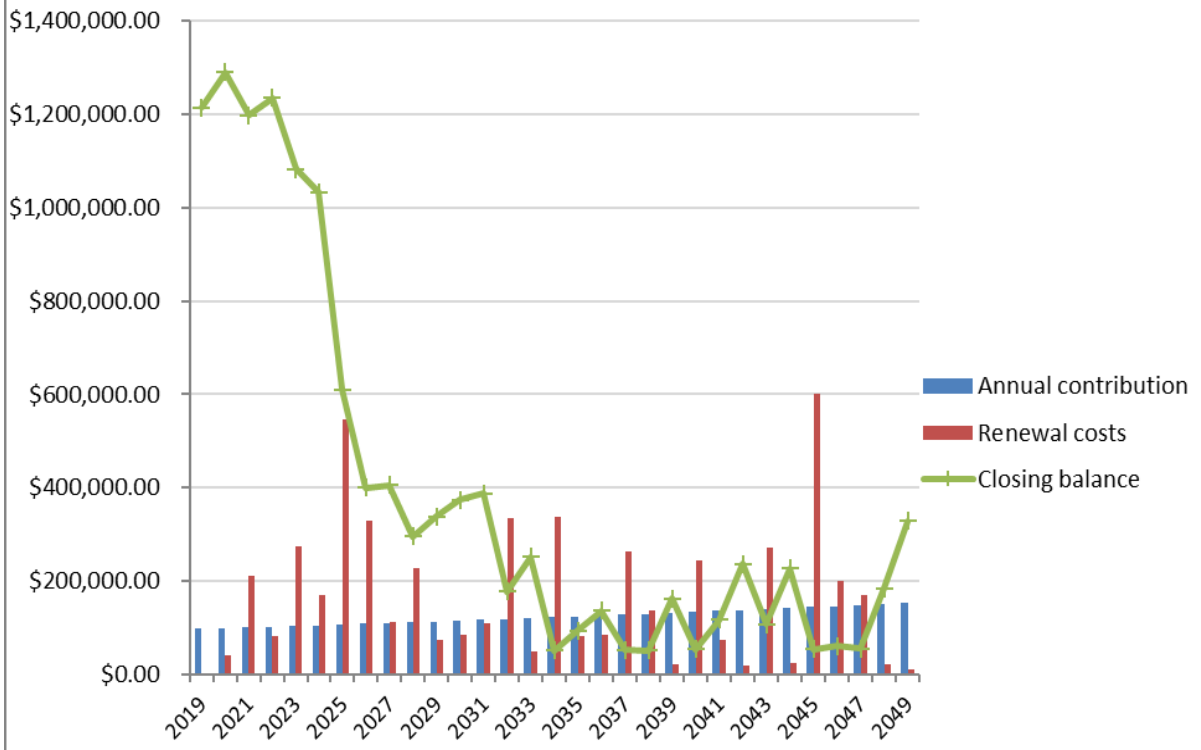
Inflation Rate: 1.90%

Interest Rate: 1.50%

2019 Annual Contribution: \$98,000.00

Year	Opening balance	Annual contribution	Increase over previous year	Catch-up amount	Total contribution	Interest income	Renewal costs		Closing balance
							2019 \$	Inflated (\$)	
2019	\$1,103,795.00	\$98,000.00			\$98,000.00	\$16,556.93	\$4,000.00	\$4,000.00	\$1,214,351.93
2020	\$1,214,351.93	\$99,470.00	1.5%		\$99,470.00	\$18,215.28	\$41,000.00	\$41,779.00	\$1,290,258.20
2021	\$1,290,258.20	\$100,962.05	1.5%		\$100,962.05	\$19,353.87	\$204,459.00	\$212,302.25	\$1,198,271.88
2022	\$1,198,271.88	\$102,476.48	1.5%		\$102,476.48	\$17,974.08	\$79,000.00	\$83,589.10	\$1,235,133.34
2023	\$1,235,133.34	\$104,013.63	1.5%		\$104,013.63	\$18,527.00	\$254,659.00	\$274,571.70	\$1,083,102.27
2024	\$1,083,102.27	\$105,573.83	1.5%		\$105,573.83	\$16,246.53	\$155,795.00	\$171,168.73	\$1,033,753.90
2025	\$1,033,753.90	\$107,157.44	1.5%		\$107,157.44	\$15,506.31	\$487,264.00	\$545,518.43	\$610,899.22
2026	\$610,899.22	\$108,764.80	1.5%		\$108,764.80	\$9,163.49	\$287,893.00	\$328,435.73	\$400,391.78
2027	\$400,391.78	\$110,396.27	1.5%		\$110,396.27	\$6,005.88	\$95,840.28	\$111,414.46	\$405,379.47
2028	\$405,379.47	\$112,052.22	1.5%		\$112,052.22	\$6,080.69	\$192,727.00	\$228,302.26	\$295,210.12
2029	\$295,210.12	\$113,733.00	1.5%		\$113,733.00	\$4,428.15	\$62,000.00	\$74,839.96	\$338,531.31
2030	\$338,531.31	\$115,439.00	1.5%		\$115,439.00	\$5,077.97	\$68,910.00	\$84,761.43	\$374,286.85
2031	\$374,286.85	\$117,170.58	1.5%		\$117,170.58	\$5,614.30	\$86,800.00	\$108,795.25	\$388,276.48
2032	\$388,276.48	\$118,928.14	1.5%		\$118,928.14	\$5,824.15	\$262,000.00	\$334,630.62	\$178,398.15
2033	\$178,398.15	\$120,712.06	1.5%		\$120,712.06	\$2,675.97	\$38,679.00	\$50,340.07	\$251,446.11
2034	\$251,446.11	\$122,522.74	1.5%	\$10,000.00	\$132,522.74	\$3,771.69	\$254,000.00	\$336,857.70	\$50,882.85
2035	\$50,882.85	\$124,360.58	1.5%		\$124,360.58	\$763.24	\$60,500.00	\$81,760.27	\$94,246.40
2036	\$94,246.40	\$126,225.99	1.5%		\$126,225.99	\$1,413.70	\$62,327.00	\$85,829.65	\$136,056.44
2037	\$136,056.44	\$128,119.38	1.5%	\$50,000.00	\$178,119.38	\$2,040.85	\$187,708.28	\$263,401.80	\$52,814.86
2038	\$52,814.86	\$130,041.17	1.5%	\$5,000.00	\$135,041.17	\$792.22	\$95,527.00	\$136,595.26	\$52,053.00
2039	\$52,053.00	\$131,991.79	1.5%		\$131,991.79	\$780.79	\$15,368.00	\$22,392.42	\$162,433.16
2040	\$162,433.16	\$133,971.67	1.5%		\$133,971.67	\$2,436.50	\$165,003.00	\$244,990.76	\$53,850.57
2041	\$53,850.57	\$135,981.24	1.5%		\$135,981.24	\$807.76	\$48,868.00	\$73,936.11	\$116,703.46
2042	\$116,703.46	\$138,020.96	1.5%		\$138,020.96	\$1,750.55	\$12,868.00	\$19,838.89	\$236,636.08
2043	\$236,636.08	\$140,091.28	1.5%		\$140,091.28	\$3,549.54	\$173,868.00	\$273,149.29	\$107,127.61
2044	\$107,127.61	\$142,192.64	1.5%		\$142,192.64	\$1,606.91	\$14,868.00	\$23,801.65	\$227,125.52
2045	\$227,125.52	\$144,325.53	1.5%	\$280,000.00	\$424,325.53	\$3,406.88	\$367,997.00	\$600,306.52	\$54,551.41
2046	\$54,551.41	\$146,490.42	1.5%	\$60,000.00	\$206,490.42	\$818.27	\$120,477.00	\$200,265.95	\$61,594.15
2047	\$61,594.15	\$148,687.77	1.5%	\$15,000.00	\$163,687.77	\$923.91	\$100,708.28	\$170,585.59	\$55,620.25
2048	\$55,620.25	\$150,918.09	1.5%		\$150,918.09	\$834.30	\$12,868.00	\$22,210.71	\$185,161.94
2049	\$185,161.94	\$153,181.86	1.5%		\$153,181.86	\$2,777.43	\$6,868.00	\$12,079.69	\$329,041.54

### Reserve fund cash flow projection, Alternative 2 1128 Sunset Waterfront



**C4: Alternative 3, 1.9% annual increase with cash calls in 2045 and 2046**

PROJECT NAME: Sunset Waterfront. 1128 Sunset Drive, Kelowna, BC.

Inflation Rate: 1.90%

Interest Rate: 1.50%

2019 Annual Contribution: \$98,000.00

Year	Opening balance	Annual contribution	Increase over previous year	Catch-up amount	Total contribution	Interest income	Renewal costs		Closing balance
							2019 \$	Inflated (\$)	
2019	\$1,103,795.00	\$98,000.00			\$98,000.00	\$16,556.93	\$4,000.00	\$4,000.00	\$1,214,351.93
2020	\$1,214,351.93	\$99,862.00	1.9%		\$99,862.00	\$18,215.28	\$41,000.00	\$41,779.00	\$1,290,650.20
2021	\$1,290,650.20	\$101,759.38	1.9%		\$101,759.38	\$19,359.75	\$204,459.00	\$212,302.25	\$1,199,467.08
2022	\$1,199,467.08	\$103,692.81	1.9%		\$103,692.81	\$17,992.01	\$79,000.00	\$83,589.10	\$1,237,562.80
2023	\$1,237,562.80	\$105,662.97	1.9%		\$105,662.97	\$18,563.44	\$254,659.00	\$274,571.70	\$1,087,217.51
2024	\$1,087,217.51	\$107,670.57	1.9%		\$107,670.57	\$16,308.26	\$155,795.00	\$171,168.73	\$1,040,027.61
2025	\$1,040,027.61	\$109,716.31	1.9%		\$109,716.31	\$15,600.41	\$487,264.00	\$545,518.43	\$619,825.90
2026	\$619,825.90	\$111,800.92	1.9%		\$111,800.92	\$9,297.39	\$287,893.00	\$328,435.73	\$412,488.47
2027	\$412,488.47	\$113,925.13	1.9%		\$113,925.13	\$6,187.33	\$95,840.28	\$111,414.46	\$421,186.48
2028	\$421,186.48	\$116,089.71	1.9%		\$116,089.71	\$6,317.80	\$192,727.00	\$228,302.26	\$315,291.72
2029	\$315,291.72	\$118,295.42	1.9%		\$118,295.42	\$4,729.38	\$62,000.00	\$74,839.96	\$363,476.56
2030	\$363,476.56	\$120,543.03	1.9%		\$120,543.03	\$5,452.15	\$68,910.00	\$84,761.43	\$404,710.31
2031	\$404,710.31	\$122,833.35	1.9%		\$122,833.35	\$6,070.65	\$86,800.00	\$108,795.25	\$424,819.06
2032	\$424,819.06	\$125,167.18	1.9%		\$125,167.18	\$6,372.29	\$262,000.00	\$334,630.62	\$221,727.90
2033	\$221,727.90	\$127,545.36	1.9%		\$127,545.36	\$3,325.92	\$38,679.00	\$50,340.07	\$302,259.10
2034	\$302,259.10	\$129,968.72	1.9%		\$129,968.72	\$4,533.89	\$254,000.00	\$336,857.70	\$99,904.01
2035	\$99,904.01	\$132,438.12	1.9%		\$132,438.12	\$1,498.56	\$60,500.00	\$81,760.27	\$152,080.42
2036	\$152,080.42	\$134,954.45	1.9%		\$134,954.45	\$2,281.21	\$62,327.00	\$85,829.65	\$203,486.43
2037	\$203,486.43	\$137,518.58	1.9%		\$137,518.58	\$3,052.30	\$187,708.28	\$263,401.80	\$80,655.50
2038	\$80,655.50	\$140,131.44	1.9%		\$140,131.44	\$1,209.83	\$95,527.00	\$136,595.26	\$85,401.51
2039	\$85,401.51	\$142,793.93	1.9%		\$142,793.93	\$1,281.02	\$15,368.00	\$22,392.42	\$207,084.04
2040	\$207,084.04	\$145,507.02	1.9%		\$145,507.02	\$3,106.26	\$165,003.00	\$244,990.76	\$110,706.56
2041	\$110,706.56	\$148,271.65	1.9%		\$148,271.65	\$1,660.60	\$48,868.00	\$73,936.11	\$186,702.70
2042	\$186,702.70	\$151,088.81	1.9%		\$151,088.81	\$2,800.54	\$12,868.00	\$19,838.89	\$320,753.17
2043	\$320,753.17	\$153,959.50	1.9%		\$153,959.50	\$4,811.30	\$173,868.00	\$273,149.29	\$206,374.68
2044	\$206,374.68	\$156,884.73	1.9%		\$156,884.73	\$3,095.62	\$14,868.00	\$23,801.65	\$342,553.37
2045	\$342,553.37	\$159,865.54	1.9%	\$140,000.00	\$299,865.54	\$5,138.30	\$367,997.00	\$600,306.52	\$47,250.69
2046	\$47,250.69	\$162,902.99	1.9%	\$42,000.00	\$204,902.99	\$708.76	\$120,477.00	\$200,265.95	\$52,596.49
2047	\$52,596.49	\$165,998.14	1.9%		\$165,998.14	\$788.95	\$100,708.28	\$170,585.59	\$48,797.99
2048	\$48,797.99	\$169,152.11	1.9%		\$169,152.11	\$731.97	\$12,868.00	\$22,210.71	\$196,471.36
2049	\$196,471.36	\$172,366.00	1.9%		\$172,366.00	\$2,947.07	\$6,868.00	\$12,079.69	\$359,704.74

### Reserve fund cash flow projection, Alternative 3 1128 Sunset Waterfront

