

## Southampton Green

### 2017 Reserve Fund Study



Prepared for:

Southampton Green Condominium  
Corporation No. 9813260  
315 Southampton Drive SW, Calgary, AB  
c/o Simco Management (Calgary) Inc.  
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Prepared by:

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## EXECUTIVE SUMMARY

The intent of a Capital Reserve Fund analysis is to develop the financial requirements to establish and maintain a Capital Replacement Reserve Fund to finance the future major repairs and/or replacement of the common property components.

Read Jones Christoffersen Ltd. has performed visual inspections of the buildings property by technical staff to determine the general condition of common property building components. The anticipated life and replacement costs of each component are derived from published data, discussion with contractors, and on our experience. With the present equivalent age and the expected normal life determined, the remaining life was calculated.

Based on estimated remaining life and replacement costs, Reserve Fund projections are prepared based on the present annual contributions as well as the calculated future contributions in order to maintain a minimum balance in the reserve fund. Different scenarios are provided in Appendix B for consideration by the Board.

Legislation requires that the Reserve Fund analysis and cash flow charts be updated at a maximum of five years to reflect the current condition of the common property as well as requirements of the Corporation. Also, a Board must, for each fiscal year, prepare an annual report respecting the reserve fund per the requirements of section 29 of the Condominium Property Regulation.

### Reserve Fund Background Information:

Condominium Plan No.:	9813260	Site Review Date:	April 27, 2017
Number of Units:	288 apartment style residential units	Draft Issue Date:	May 19, 2017
Construction Year:	1979	Final Issue Date:	September 6, 2017
Year End:	December 31		
Approximate Anticipated Opening Balance	\$2,550,000.00as of January 1, 2018		
Current Annual Contribution	\$445,000.00		
Reserve Fund Projection	25 years		

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## 1.0 TERMS OF REFERENCE

Read Jones Christoffersen Ltd. (RJC) was commissioned to perform a capital replacement reserve fund study for Southampton Green condominium complex, located at 315 Southampton Drive SW, Calgary, AB, by Simco Management (Calgary) Inc. on behalf of The Board of Directors. The intent and terms of this study are outlined in our proposal dated February 23, 2017 and include the following:

- Determine the inventory of major common property as stipulated in the Condominium plan.
- Perform inspections of the common property components to form an opinion of their general condition, and assess the remaining life of the components.
- Review the operation and maintenance history of the complex, including the associated costs, with the property manager.
- Determine the repair and replacement requirements for the major common property components based upon their age, condition and expected remaining life.
- Offer an opinion of probable cost for work required.
- Develop financial requirements to establish and maintain a capital replacement reserve fund to finance the future repair and replacement of the common property.

No destructive testing was performed to confirm actual conditions during the preparation of our report.

A summary of our condition survey is provided in Appendix A. Reserve Fund calculation sheets are included in Appendix B.

### 1.1 Capital Replacement Reserve Fund

Those definitions provided in the Province of Alberta Condominium Property Act, Revised Statutes of Alberta 2000 Chapter C-22 with revisions up to and including those of May 23, 2013 and in conjunction with the Condominium Property Regulations 168/2000 with amendments up to and including Alberta regulation 103/2011 were used for the purposes of this reserve fund study.

The capital replacement reserve fund is an amount of money “used to provide sufficient funds that can reasonably be expected to provide for major repairs and replacement of any real and personal property owned by the Corporation, and the common property, where the repair and replacement is of a nature that does not normally occur annually” (Section 38.1). Items of routine or annual maintenance are not included, and must be considered separately by the Board, with budgets allocated accordingly.

This reserve fund projection is intended to be a dynamic document, which should be reviewed annually by the Board. Updates to the financial forecasts may be prudent at times when large unplanned expenditures have occurred. RJC can provide assistance with financial updates, typically on an hourly rates basis. In addition, the reserve fund projection should be re-evaluated periodically on a maximum of every five years, in order to reflect the current condition of the common property components, the requirements of the Corporation, inflation and the cost of construction.

For the purposes of this reserve fund projection, we have shown only those repair and replacement expenditures, which are expected to be required within the next 25 years.

## 1.2 Replacement Versus Maintenance

Typically, reserve fund calculations are based on the replacement of capital items based on their expected normal life. Replacement costs for the various components noted in the reserve fund can be significant. **In some cases, the Board will need to decide whether to maintain a component beyond its expected service life or to replace it.** Maintenance is required to help the component reach its expected normal life.

As the component reaches the end of its expected life, maintenance of the component might not be economically feasible or practical. In these instances, maintaining the component beyond its expected service life could result in higher maintenance costs and there could be increased risks associated with failure of the component.

For the reserve fund calculations, we are providing costs for replacement or major repairs (depending on the particular component). The decision to maintain or replace an item is one that the Board needs to consider as the component approaches the end of its useful life. This requires inspection of the particular component by qualified individuals and assessment of the costs, risks, and benefits of performing this work. This type of decision-making process is not part of a reserve fund study.

## 1.3 Methodology For Calculations

The Condominium Act requires that a financial study be in place to deal with the capital replacement of items on a project. This study must allow for sufficient funds for replacement of common property over the life of the complex. The function of the study is intended to provide a quantitative expression for the corporation to use to develop a proposed plan of action. For the purpose of this study, a minimum fund balance approach has been used.

The minimum fund balance is intended to maintain the reserve fund closing balance at or above a predetermined minimum cash balance during the specified period of the study. The replacement schedule is intended to act as a guideline and can vary over the timeframes used in the study, depending on the actual condition of the component as it approaches the end of its life. This approach incorporates a rolling budget concept such that the reserve contribution requirements are anticipated to change in subsequent updates to account for the actual replacement of components.

Since the reserve fund balance is kept to a set minimum value, the annual contributions may need to be adjusted throughout the life of the complex. In using this method, the study will require ongoing management to reflect changing conditions.

The minimum fund for this complex has been set at \$200,000 plus an annual increase for inflation. This value was selected, as this amount should be sufficient to pay for one or two large unexpected expenditures that might occur sooner than anticipated.

## 1.4 Common Property

The Condominium Property Act defines that "Common Property means so much of the parcel as is not comprised in any unit shown on the Condominium Plan, but does not include land shown on the

condominium plan that has been provided for the purposes of roads, public utilities and reserve land" (Section 1 (1) f).

For the purposes of this Reserve Fund Study, we have defined common property to include the following:

- Exterior walls,
- Unit entrance doors from corridors/hallways,
- Exterior windows, balcony doors, patio doors, building entrance/exit doors,
- The roof and all roofing materials,
- All fencing,
- Sidewalks,
- Amenity Rooms
- Exterior patios, walkways and balconies,
- The building structures,
- Landscaping works and any and all chattels owned or kept by the Corporation,
- Common stairways, hallways, and lobby and entrance areas,
- Common area interior doors,
- Boiler rooms,
- All utility services, on, under or through the common property,
- All other outside facilities and accoutrements affecting the appearance, usability, value or safety of the parcel or the units.

For the purpose of this study, we have not included fixtures or finishes contained wholly within a unit, such as paint, floor and wall coverings, lights, receptacles, or plumbing fixtures, which do not have an effect on other Units or the Corporation. In addition, components that may require repair or replacement beyond the 25 year projections (such as total replacement of underground services) may not appear in the expenditures; however, a brief discussion is provided separately in the condition survey (Appendix A) and they are included in the items schedule.

## 1.5 Life Expectancy And Replacement Costs

It is attempted to accurately estimate the life expectancy, replacement cost, and present condition of reserve fund elements, however, this is not an exact science, especially with respect to underlying or buried elements hidden from view. Opinions of costs and present condition rely on published data on expected normal lives of components, discussion with contractors and on our previous experience. Actual conditions may differ significantly from the assumed conditions. In addition, the maintenance performed on components can often help to extend the life of many of the components. For this reason, it is important to update technical assessments periodically in order to keep the fund current. Recommendations for additional/updated detailed technical evaluations are included in Section 5.0.

The projected timing of expenditures is estimated and should not necessarily be used to determine the actual timing of repairs or replacements. Year to year adjustments to timing and/or phasing of repair programs have little effect on the Required Annual Contribution. The Board should develop their annual budgets based on actual conditions at that time. They should not rely upon the projection represented on the Reserve Fund Expenditure Schedule, which attempts to predict expenditures too far into the future to be reliable in the short term.

## 2.0 HISTORY AND DESCRIPTION OF COMPLEX

The low rise residential condominium complex was constructed circa 1979, and utilizes wood frame construction. A total of 288 apartment style residential units in nine buildings are divided into 24 separate 12 unit 'pods'. There is also one common clubhouse building in the complex. Each 'pod' contains its own mechanical and electrical utilities. Access to the complex is by a paved asphalt roadway. Windows and doors are considered common property and therefore are to be included in reserve fund calculations.



## 3.0 DISCUSSION

A visual examination of the complex was performed to review the general condition of the common property elements and to assist in the preparation of the reserve fund study. Appendix A summarizes the findings of our site examination.

Appendix B includes spreadsheets which calculate reserve fund contributions based on the present fund balance indicated by the Board, our opinion of the cost of repairs/replacement, estimated life-span, and estimated remaining life of each item. Calculations include adjustments for selected interest and inflation rates based on an assumed average rate of inflation of 2% and an annual interest rate of 2%. GST is not recoverable and so has been included in the costs. Inflation and interest rates can vary significantly over time; however, the difference between these rates is the factor that most impacts future expenditures and reserve fund studies.

Costs and life predictions are based on published book values, discussions with contractors, and our experience with similar projects. These are not firm costs for repair and the actual cost and life predictions will vary. There may also be unforeseen conditions that could affect the proposed expenditure schedule. This could require adjustment to the time frames for the work and in some cases, could result in special assessments, should there be a large, unbudgeted expense in any particular year.

The ***Items Schedule*** lists all the proposed major capital items included in calculating the annual contributions. This schedule summarizes each of the items and includes the current costs of the work, expected life, present equivalent age and the estimated remaining life.

The ***Expenditure Schedule*** lists the proposed work to be completed in each year for the next 25 years, based on the data provided in the ***Items Schedule*** for each item in the complex. This can be used as a guideline to schedule work for the first 3 to 5 years. Changes to the work for future years would be adjusted during periodic updates of the reserve fund.

#### 4.0 RECOMMENDATIONS – RESERVE FUND CONTRIBUTIONS

It is our understanding that as of January 1, 2018, the balance in the reserve fund will be approximately \$2,550,000.00. In the scenarios presented we have maintained a minimum fund balance of \$200,000 (increased for inflation) throughout the 25 year period where possible.

It is not possible to maintain the current annual capital reserve fund contributions and accommodate the 25 year term forecasted expenditures. An increase in annual reserve fund contributions will be required. We typically suggest increasing contributions by a certain percentage each year.

In order to comply with the Condominium Property Act, the Board must approve a scenario and develop a plan for adequately funding and maintaining the reserve fund. These amounts are designated for capital expenditures, and are in addition to other condominium fees, which the Board may normally assess for maintenance and operations.

Multiple scenarios were presented for the Board's review in draft versions of the study. Each scenario provided the closing balance and required contributions for the next 25 years of the building's life based on various levels of contribution to the reserve fund. The Board has subsequently chosen a scenario for issuance with this study.

As there are numerous factors that can affect the longevity and performance of a component, it is difficult to accurately predict the anticipated expenditures over the 25-year period. In some cases, components could require replacement earlier or later than what is noted in this document. It is therefore essential that the Owners and the Board understand that the reserve fund report should be used to establish fees and expenditures for the first three to five years (note that the legislation requires that the plan be updated at a period not to exceed five years). Annual contributions could then be adjusted as required.

In addition, the Board may wish to consider updating only the financial calculations for the reserve fund annually, similar to updating the maintenance and operating budgets. This would consist of recording the actual work performed in that year, updating the costs and possibly modifying the expenditures in the short term.

#### 5.0 ADDITIONAL INVESTIGATIONS

Further investigation is recommended for some of the items noted in our Condition Survey. The reserve fund condition survey was limited to primarily visual review and does not incorporate dismantling of finishes or materials testing. We suggest that additional investigations be performed as follows:

The cladding, caulking materials, windows, and doors should be examined periodically to determine where repairs are required to reduce the risk of water penetration into the buildings. If any evidence of moisture infiltration is identified, remedial waterproofing should be initiated promptly to mitigate damage.

Periodic inspection of the roofs is recommended to determine areas where maintenance may be required and to allow for prompt repair.



- The cladding, caulking materials, windows, and doors should be examined periodically to determine where repairs are required to reduce the risk of water penetration into the buildings. If any evidence of moisture infiltration is identified, remedial waterproofing should be initiated promptly to mitigate damage.
- Periodic inspection of the roofs is recommended to determine areas where maintenance may be required and to allow for prompt repair.
- Regular cleaning and infrared scanning of the electrical system should be completed.
- Annual inspection of boiler flues is recommended.
- It is recommended that a review of the buildings fire separations be conducted and all deficient areas be recorded and repaired as required.

Based on the findings from the above noted investigations, the Board would have a better understanding of the condition of the components and the priorities for repair. Additionally, this information can be helpful in preparing the appropriate details and specifications for the work. This type of preparation could reduce the potential risk of unexpected repairs and minimize costly changes that could arise from an unclear scope of work.

Thank you for selecting RJC to assist you with this study. Should you have any questions or comments, or if we may be of further assistance, please do not hesitate to contact our office.

Yours truly,

READ JONES CHRISTOFFERSEN LTD.



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## APPENDIX A

### CONDITION SURVEY



## CONDITION SURVEY

Read Jones Christoffersen Ltd performed a condition survey consisting of a review of the visibly accessible elements of the Common Property. Following is a brief description and our comments regarding some of the more significant items included in the reserve fund projection.

We have included our assumptions for the "Expected Life" of the component under normal use, the "Present Equivalent Age" (our estimate of its age based on our visual review or based on the present age of the component) and the "Estimated Remaining Life" which is the difference of the expected life and its present equivalent age. These are used in the reserve fund calculations for the various components and are based on published data, discussion with contractors and our previous experience. In some cases we have used an average age for calculating components, which may have experienced previous replacement or partial replacement. Additionally, we may present an age that differs from actual for components that are experiencing premature deterioration or those that are in better condition than their age resembles.

The actual life of many of these components will vary depending upon factors such as maintenance and quality of the original products. In addition, design decisions made at the start of construction may have the biggest impact on both the functionality and aesthetics. Areas such as the building orientation, the number and style of windows, the type of roof construction and insulation values are some of the major components that are dependent on each other's performance. Factors such as the snow removal, repainting/staining, and lawncare practices can also influence the life of exterior components.

Upon replacement or renovation of common property, the Board may require a special resolution with 75% owner support if the appearance of the complex is changed or if a common property element is being replaced with something significantly different than existing.

This report has been prepared after a site visit and a review of any existing drawings and records made available. No calculations or testing of the common property components, systems or equipment has been undertaken. This report reflects the best judgements in the light of the information available at the time of preparation.

### A1.0 BUILDING INTERIOR COMMON PROPERTY

In this section, allowances have been made for repairs such as painting and replacement of the interior building finishes within the common areas, based upon both our understanding of the current repair and replacement schedules and those recommendations presented by the Board.

The frequency of refinishing work or replacement will need adjustment according to both wear and the desire to update appearance. The condition of these areas will depend on regular maintenance, and the level of usage. The renovation budgets provided allow for repair and replacement of similar materials. Exterior finishes, electrical, mechanical, and safety components are addressed separately in their applicable sections of this report.

Annual repairs will be required to address localized damage or problems that typically occur. No budgets have been included for these types of annual repairs as they are usually included in the maintenance and operations budgets.

A quantity survey and condition review were taken of each common area and included in the total budgets for each of these areas. The following is a breakdown of those areas reviewed.

1.01 COMMON AREA PAINTED FINISHES

Common area painted finishes appeared to be in good condition at the time of review. We understand that all residential common areas were painted in 2012. We have included a budget for painting walls and ceilings. The clubhouse finishes are not included in this item.

Expected Normal Life:	15	Years
Present Equivalent Age:	5	Years
Estimated Remaining Life:	10	Years

Renovation budget: \$130,000

1.02 COMMON AREA CARPET FLOORING

Common area carpet finishes were in marginal condition at the time of our review. Carpet was last replaced in 2008 for buildings 1, 4, and 5, and in remaining buildings in 2012. Areas of wear and stains were noted in various stairs and hallways. We have included a budget for replacement of the carpet. The clubhouse carpet is not included in this item.

Expected Normal Life:	15	Years
Present Equivalent Age:	9	Years
Estimated Remaining Life:	6	Years



Photograph 1: Common Area Carpet

Replacement budget: \$175,000

1.03 COMMON AREA INTERIOR DOORS

Included under this item are interior doors associated with common property such as entry doors to units, mechanical and electrical rooms, and interior stairwells. We do not anticipate replacement of the glazed wall sections adjacent to the stairwell doors. It is assumed these will only be replaced if isolated breakage occurs due to impact and will be covered under the maintenance and operations budgets and not the reserve fund.



Photograph 2: Common Area Interior Doors

Overall, the common area doors appeared to be in good condition. Door sizes, styles and construction vary throughout the building. Included are insulated and non-insulated hollow metal doors, and wood core doors. We noted that select fire rating labels located on the edges of the unit doors have been painted over. This should be avoided as it prevents future determination of whether or not the doors and frames are appropriately fire rated.

Regular maintenance of doors and hardware will be required throughout the life of the complex. These maintenance costs are anticipated to cover replacement of the hardware, and are expected to be covered under the operating expenses and not part of the reserve fund.

Complete replacement of door hardware has been accounted for at the time of door replacement. Note that budgets are included for individual doors including those areas where double doors have been installed. The Board will need to review each door replacement to ensure the appropriate fire rating is maintained.

Expected Normal Life:	45	Years
Present Equivalent Age:	30	Years
Estimated Remaining Life:	15	Years

Replacement budget: \$300,000

#### 1.04 COMMON AREA FINISHES – CLUBHOUSE BASEMENT

Basement common area finishes were currently under renovation at the time of our review. We have included a renovation allowance.

Expected Normal Life:	20	Years
Present Equivalent Age:	0	Years
Estimated Remaining Life:	20	Years

Renovation allowance: \$30,000

#### 1.05 COMMON AREA FINISHES – CLUBHOUSE UPPER FLOORS

Upper floor common area finishes in the clubhouse include carpet, laminate, vinyl and wood flooring, wall and ceiling paint, kitchen and bathroom counters, and fireplace mantle. The finishes appeared to be in moderate to good condition at the time of review. We have included a budget for painting walls and ceilings and replacement of the flooring components. We do not anticipate replacement of the glazed wall sections overlooking the fitness room and office. It is assumed these will only be replaced if isolated breakage occurs due to impact and will be paid for out of the maintenance and operations budgets and not the reserve fund.



Photograph 3: Clubhouse Main Floor Finishes

Expected Normal Life:	15	Years
Present Equivalent Age:	11	Years
Estimated Remaining Life:	4	Years

Renovation budget: \$20,000

## 1.06 COMMON AREA INTERIOR DOORS - CLUBHOUSE

We have included an allowance for all common area interior doors within the clubhouse.

Expected Normal Life:	45	Years
Present Equivalent Age:	30	Years
Estimated Remaining Life:	15	Years

Replacement budget: \$8,000

## 1.07 CLUBHOUSE FURNITURE ALLOWANCE

The following allowance includes replacement of the clubhouse furniture.

Expected Normal Life:	20	Years
Present Equivalent Age:	15	Years
Estimated Remaining Life:	5	Years

Replacement budget: \$5,000

## 1.08 CLUBHOUSE FITNESS EQUIPMENT

The following budget includes for replacement of the exercise equipment in the Clubhouse fitness room. The equipment includes ellipticals, treadmills, bikes, weight lifting machines, and a scale.

Expected Normal Life:	15	Years
Present Equivalent Age:	8	Years
Estimated Remaining Life:	7	Years



Photograph 4: Clubhouse Fitness Equipment

Replacement budget: \$11,000

## A2.0 BUILDING EXTERIOR COMMON PROPERTY

In this section, allowances have been made for repair or replacement of components or finishes on the exterior areas of the building. These areas consist of the exterior walls, balconies, soffit, exterior doors and windows.

The exterior wall cladding of the complex consists of painted cedar. A visual review of the cladding suggests it is performing well.

The cladding assembly noted above function as “concealed barrier” wall system. In a concealed barrier system, the exterior cladding components act to shed water away however, should water penetrate behind the exterior face, the underlying barrier (e.g. building paper) acts to protect the underlying framing members. The in-situ construction was not confirmed and selective removal of finishes would be required to confirm the construction details. Destructive testing of the assembly was not performed to determine if moisture related deterioration was occurring within the wall assemblies.

## 2.01 CEDAR SIDING – PAINT

The exterior walls and fascia of the buildings are primarily clad with painted cedar cladding. The wood siding appeared in good condition at the time of our review. We understand that the wood cladding on all buildings was painted in 2011.

It is anticipated that maintenance of the wood surfaces would include removal of peeling paint and application of a good quality paint. The life of the wood finishes can be extended if re-coating of the surfaces is continued. The frequency for which painting is currently performed on this complex is anticipated on a 10-year basis to prevent premature deterioration.

Expected Normal Life:	10	Years
Present Equivalent Age:	6	Years
Estimated Remaining Life:	4	Years

Restoration budget: \$145,000

## 2.02 CEDAR SIDING – REPLACE

Replacement of the cedar siding and sheathing paper is included in the following budget. Repair of underlying wall deterioration discovered during removal of the siding is not included in the following budget.

Expected Normal Life:	50	Years
Present Equivalent Age:	35	Years
Estimated Remaining Life:	15	Years

Replacement budget: \$1,340,000

## 2.03 WOOD SOFFIT - PAINT

Wood soffit is installed at the underside of the balconies and faux mansard roof. It is anticipated that maintenance of the wood surfaces would include removal of peeling paint and application of new. The life of the wood finishes can be extended if re-coating of the surfaces is continued.

Expected Normal Life:	10	Years
Present Equivalent Age:	6	Years
Estimated Remaining Life:	4	Years

Restoration budget: \$43,000

## 2.04 WOOD SOFFIT – REPLACE

Replacement of the wood soffit is included in the following budget. Annual repairs will be required to address localized damage or problems that may occur. Budgets have not been included for these types of annual repairs as they are typically included in the maintenance and operations budgets.

Expected Normal Life:	50	Years
Present Equivalent Age:	35	Years
Estimated Remaining Life:	15	Years

Replacement budget: \$230,000

## 2.05 CEDAR SHINGLES – SELECTIVE REPAIR

The faux mansard roof is clad with cedar shingles, which appeared to be in good condition at the time of our review. Selective repairs to the shingles were last completed in 2012. The following allowance allows for selective repairs to the cedar shingles.

Expected Normal Life:	10	Years
Present Equivalent Age:	5	Years
Estimated Remaining Life:	5	Years



Photograph 5: Typical Mansard Roof

Restoration budget: \$100,000

## 2.06 CEDAR SHINGLES – REPLACEMENT

Replacement of the cedar shingles may be required within the time frame of the study and therefore replacement costs have been included in expenditure projections. Repairs will be required to address localized damage or problems that may occur. An allowance has been included for repairs in item 2.05. Repair of underlying structural deterioration discovered during removal of the cedar shingles is not included in the following budget.

Expected Normal Life:	50	Years
Present Equivalent Age:	37	Years
Estimated Remaining Life:	13	Years

Replacement budget: \$1,485,000

## 2.07 OPERABLE AND FIXED WINDOW UNITS - RESIDENTIAL

There are generally two styles of windows used on the residential buildings; slider operable units with vinyl frames, and fixed sealed units with wood frames. We understand the operable windows were replaced over a three year phased program that was completed in 2010. The fixed units that are located adjacent to the main entrance of each pod are set in wood frames and appear to be from original construction. Replacement of the fixed units is included in section 2.08. No reports of moisture ingress around the windows were provided to us during our review.



Photograph 6: Operable Residential Window



In general, the windows appeared to be in good condition; however, as the units begin to age their condition will vary with the level of exposure to the elements. Various approaches to phasing the window replacement may be considered at the time of replacement.

It is anticipated that regular maintenance will be required over the anticipated life of these units. The sealed units in the complex typically have a life expectancy of around 25 to 35 years, depending on factors such as the quality of the installation, the quality of the window construction and the type of sealed unit used. When the seal fails, condensation or “fogging” of the unit can occur. Also, there is a loss in the insulating value of these units. The sealed units are typically replaced once they have failed.

An estimated budget for complete replacement of all the windows in the complex is provided for the reserve fund calculations. We have not included any allowance for associated wall repairs if deterioration is discovered during unit replacements. Appropriate detailing of the wall openings is required for all window replacements to ensure the building envelope is not negatively impacted.

Expected Normal Life:	30	Years
Present Equivalent Age:	8	Years
Estimated Remaining Life:	22	Years

Replacement budget: \$600,000

## 2.08 OPERABLE AND FIXED WINDOW UNITS – CLUBHOUSE & SIDELIGHTS

There are generally two styles of windows used on the clubhouse buildings; slider operable and fixed sealed units with metal frames. The windows appear to be from original construction. We have also included in this section for the sidelight windows at the pod entrance doors. In general, the windows appeared to be in moderate condition. It is anticipated that both regular maintenance and cleaning will be required over the anticipated life of these units. Should moisture infiltration be detected, corrective action should be implemented to prevent damage to surrounding areas.

Expected Normal Life:	35	Years
Present Equivalent Age:	30	Years
Estimated Remaining Life:	5	Years

Replacement budget: \$70,000

## 2.09 EXTERIOR BUILDING SEALANT

As noted above, the exterior cladding system is intended to shed water away from the buildings. The concealed barrier, which typically includes building paper and sealants, prevents water that penetrates the exterior cladding from penetrating into the back-up wall. However, exposure to excessive amounts of water, prolonged wetting, and/or any discontinuities in the concealed barrier can give way to water penetration into the back-up wall.

Our comments are as follows:

The window areas should be examined periodically to identify if moisture is penetrating the building envelope. If any evidence of moisture infiltration is identified, remedial waterproofing should be initiated promptly to mitigate damage.

Measures should be taken to periodically review and maintain the caulking at any joints or discontinuities in the cladding system. Care and judgement must be used where caulking is performed along the building so that it does not restrict water flow outwards from behind the claddings.

Periodic removal and re-installation of sealant at pipe penetrations through the exterior walls and around various roofing components is anticipated. The longevity of these sealant materials will vary with the quality of the material and installation. We have included a contingency for the reserve fund to address this work.

Based on previous projects, we suggest this work be performed on a maximum 15-year cycle.

Expected Normal Life:	15	Years
Present Equivalent Age:	10	Years
Estimated Remaining Life:	5	Years

Replacement budget: \$140,000

## 2.10 EXTERIOR PATIO AND BALCONY DOORS

Vinyl framed slider doors with glazed openings provide access onto the patio/balcony deck areas. We understand that the doors were replaced over a three year phased program that was completed in 2010. The doors appeared to be in good condition at the time of our review. Regular maintenance of the doors will be required over the life of the units. These maintenance costs are typically included in the operating expenses and have not been included in this study.



Photograph 7: Typical Patio Door

An estimated budget for complete replacement of all the doors in the complex is provided for the reserve fund calculations. We have not included any allowance for associated wall repairs if deterioration is discovered during unit replacements. Appropriate detailing of the wall openings is required for all door replacements to ensure the building envelope is not negatively impacted.

Expected Normal Life:	30	Years
Present Equivalent Age:	7	Years
Estimated Remaining Life:	23	Years

Replacement budget: \$475,000

## 2.11 BUILDING ENTRANCE DOORS

Insulated hollow core metal framed doors provide access into and out of the building. The board has indicated that 24 entrance doors will be replaced by the end of 2017. We have assumed the remaining doors would be replaced in 2018.

Expected Normal Life:	35	Years
Present Equivalent Age:	35	Years
Estimated Remaining Life:	0	Year



Photograph 8: Residential Entrance Door

Replacement budget: \$90,000  
Budget provided by Board

## 2.12 STORAGE AND SERVICE DOORS

Insulated hollow core metal framed doors provide access into the storage rooms and gas meter rooms. We understand that these doors are being replaced on an as-needed basis. The following budget allows for replacement of the doors.

Expected Normal Life:	50	Years
Present Equivalent Age:	30	Years
Estimated Remaining Life:	20	Years

Replacement budget: \$200,000

## 2.13 BALCONY RAILINGS - RESTORATION

Painted metal railings with painted cedar wood infills are used to enclose the balconies. The metal railings and wood appeared to be in reasonable condition at the time of our review. It is assumed that the metal railings will be serviceable for the life of the complex. The following budget includes restoration of the railings, including application of exterior paint and selective replacement of deteriorated wood infill.



Photograph 9: Typical Balcony Railing

Expected Normal Life:	5	Years
Present Equivalent Age:	1	Year
Estimated Remaining Life:	4	Years

Restoration budget: \$15,000

## 2.14 BALCONY CONCRETE TOPPING

A thin concrete topping has been installed on the balcony decks and appears to be from original construction. We did not observe a waterproofing membrane on the balconies. Small isolated spalls on the balcony edges, and cracks in the field of the topping were observed during our review. The

following allowance includes selective repairs such as crack sealing and spall patching for the concrete balcony topping.

Expected Normal Life:	5	Years
Present Equivalent Age:	2	Years
Estimated Remaining Life:	3	Years

Restoration budget: \$25,000

## 2.15 EAVESTROUGHS AND DOWNSPOUTS

The eavestrough is a typical formed metal gutter fastened to the fascia such that water from the sloped clubhouse roof is directed into the eavestrough. Metal downspouts are fastened to the eavestrough at various locations around the clubhouse and are also installed around the residential pods to provide drainage from the flat roofs. The general condition of the system appears to be reasonable. The following budget includes replacement of the eavestroughs and downspouts throughout the complex.

Expected Normal Life:	20	Years
Present Equivalent Age:	10	Years
Estimated Remaining Life:	10	Years

Replacement budget: \$15,000

## 2.16 ENTRANCE AWNINGS

A canvas awning supported by metal framing is located above the front main entrance to each pod. The awnings appeared to be in reasonable condition at the time of our review. We have assumed the metal support framing will be reused during future replacements. We have allowed for replacement of the awning canvas in the reserve fund calculations.

Expected Normal Life:	20	Years
Present Equivalent Age:	13	Years
Estimated Remaining Life:	7	Years



Photograph 10: Typical Entrance Awning

Replacement budget: \$50,000

## 2.17 PARGING

The foundation walls around the building perimeter have been covered with a concrete parging. Cracking and delamination of the parging was observed in isolated locations, exposing the building paper and sheathing beneath. Installation of new parging materials and repair of the existing parging can be expected over the life of the building. A selective repair allowance has been included.



Photograph 11: Delaminated Parging

Expected Normal Life:	15	Years
Present Equivalent Age:	12	Years
Estimated Remaining Life:	3	Years

Restoration allowance: \$10,000

### A3.0 EXTERIOR LANDSCAPE AND MISCELLANEOUS

In this section, allowances have been made for repair or replacement of components or finishes on the exterior landscaped areas of the building. These areas consist of the sidewalks, fences and other common complex areas.

Trees, shrubs, and lawns are all items that add to the surrounding building aesthetics. These items will require frequent maintenance to uphold the appearance of the complex. No budgets have been included in the reserve fund for these items as it is assumed that landscaping maintenance is included in the operating/maintenance budget.

#### 3.01 CONCRETE ELEMENTS

Repairs or replacement of the concrete sidewalks, curbs, patios and other miscellaneous areas is anticipated throughout the life of the complex. Typically, de-icing salts and freezing and thawing conditions will significantly affect the surfaces of these concrete elements. In addition, damage can occur to curbs from the blade of a snow plough during snow removal. During our site visit we noted minimal deterioration of the concrete elements.

Depending on the extent of deterioration, repairs to exterior concrete elements could be required seasonally. For the purpose of the reserve fund, we have included a contingency for the repair of damaged concrete elements every 5 years. This budget may require some adjustment with each update to the reserve fund study and such records for these types of repairs should be maintained for these updates.

Expected Normal Life:	5	Years
Present Equivalent Age:	2	Years
Estimated Remaining Life:	3	Years

Restoration budget: \$5,000

#### 3.02 STAIRCASE RAILINGS - ENTRANCEWAYS

Railings are located throughout the complex at the sides of staircases and are comprised of prefinished metal rails and pickets at building entranceways. The railings appeared to be in good condition at the time of our review. We have included the following budgets to perform replacement of the metal railings.



Photograph 12: Typical Entranceway  
Staircase Railing

Expected Normal Life:	45	Years
Present Equivalent Age:	6	Years
Estimated Remaining Life:	39	Years

Replacement budget: \$131,000

### 3.03 STAIRCASE RAILINGS - WALKWAYS

Painted steel railings, which appear to be of original construction, are provided at walkway staircases throughout the complex. Surface corrosion was observed on select railing at the time of our review. We have included the following budgets to perform replacement of the metal railings. Painting of the steel railings is assumed to be included in the operations and maintenance budgets.

Expected Normal Life:	45	Years
Present Equivalent Age:	27	Years
Estimated Remaining Life:	18	Years



Photograph 13: Typical Walkway Railing

Replacement budget: \$15,000

### 3.04 STEEL STAIRCASE

Steel staircases covered with rubber coverings are provided at the entrances to the residential pods. During our review, advanced corrosion was observed on the underside of the staircases. Some staircases are nearing the end of their service life. The following budget includes an allowance for select replacement of the steel staircases. We expect rubber staircase coverings will be replaced on an as-needed basis out of the operations and maintenance budget.

Expected Normal Life:	7	Years
Present Equivalent Age:	2	Years
Estimated Remaining Life:	5	Years



Photograph 14: Typical Steel Staircase

Replacement budget: \$25,000

### 3.05 ASPHALT PAVEMENT

Asphalt pavement is provided in the roadways that service the complex, at pedestrian pathways between the buildings and in the tennis courts. This type of pavement structure is classified as a "flexible" pavement. The pavement consists of various compacted layers including an asphalt wear surface, and a granular base on top of native soils. We understand that an asphalt overlay and speed bumps were installed at the west main driveline in 2011. We noted cracks and small potholes in the asphalt throughout the remainder of the complex.

Since performance of the pavement is largely dependent on the performance of a structurally sound underlying base, replacement will only be required to rectify defects occurring at the base and subgrade.



These defects can become evident for several reasons such as poor compaction, or erosion due to the presence of water.

Provided the current condition does not change and the base remains intact, total replacement should not be required within the 25-year period of this reserve fund projection. No budget has been provided in our calculations for total replacement.

We do anticipate however, the need for placing an asphalt overlay in the future and have included this in our calculations. Failure of the asphalt wear surfaces will continue as the pavement structure ages. Increasing cracks, wheel rutting, and degradation due to loss of materials from the surface are expected to become apparent. If deterioration were allowed to continue, the underlying layers would be affected and replacement would become a likely requirement. Prior to applying an overlay, some modifications may need to occur such as milling and increasing the heights of manholes or curbs.

Expected Normal Life:	35	Years
Present Equivalent Age:	25	Years
Estimated Remaining Life:	10	Years

**Asphalt overlay budget: \$215,000**

### 3.06 TENNIS COURT

Two exterior tennis courts are provided behind the clubhouse. We understand that the board wishes to replace the existing tennis court with one or two half-court basketball courts and one tennis court. The following includes for milling and resurfacing of the asphalt.

Expected Normal Life:	25	Years
Present Equivalent Age:	24	Years
Estimated Remaining Life:	1	Year



Photograph 15: Tennis Court

**Asphalt overlay budget: \$25,000**

### 3.07 WOOD RETAINING WALL

Pressure treated wood retaining walls are located throughout the complex. We have assumed that individual sections of the walls will be replaced on an as-needed basis under the operations and maintenance budget. The Board should consider replacement of the retaining walls with non-moisture sensitive materials such as concrete 'Allen' blocks. The following budget does not includes replacement of the wood retaining with another material.

Expected Normal Life:	20	Years
Present Equivalent Age:	10	Years
Estimated Remaining Life:	10	Years

**Replacement budget: \$25,000**

### 3.08 GARBAGE ENCLOSURE –STAIN/PAINT

Garbage bin enclosures are provided throughout the complex. Several of the enclosures have been replaced. Currently only three of the original enclosures exist. These enclosures are constructed with painted wood. Periodic refinishing of the wood garbage bin enclosures will ensure the normal life expectancy is achieved. The following budget allows for periodic reapplication of stain or paint.

Expected Normal Life:	5	Years
Present Equivalent Age:	1	Years
Estimated Remaining Life:	4	Years

Restoration budget: \$2,000

### 3.09 GARBAGE ENCLOSURE – REPLACE

We have assumed that the remaining three original garbage enclosures will be replaced within the next few years. We've adjusted the equivalent age such that a portion of this line item expenditure appears in the first year of the study.

Expected Normal Life:	25	Years
Present Equivalent Age:	25	Years
Estimated Remaining Life:	0	Years



Photograph 16: Original Garbage Enclosure

Replacement budget: \$10,000

### 3.10 CHAIN LINK FENCE

Chain link fencing has been installed along the west perimeter of the complex as well as around the tennis courts. The fencing along the west perimeter appeared to be in good condition at the time of our review. We assume these localized repairs will be completed under the operations and maintenance budgets. Replacement costs for the fencing have been provided for the reserve fund study.

Expected Normal Life:	50	Years
Present Equivalent Age:	39	Years
Estimated Remaining Life:	11	Years

Replacement budget: \$13,000

### 3.11 PLAYGROUND EQUIPMENT

A small playground is located at the center of the complex. We did not observe any deficient conditions. The following budget includes select repair and replacement of various components.



Photograph 17: Playground Equipment



Expected Normal Life:	25	Years
Present Equivalent Age:	17	Years
Estimated Remaining Life:	8	Years

Replacement budget: \$30,000

### 3.12 PLAYGROUND RUBBER FLOOR RESURFACING

Currently gravel is provided around the playground equipment. The following budget includes replacement of the gravel with recycled tire rubber flooring.

Expected Normal Life:	15	Years
Present Equivalent Age:	12	Years
Estimated Remaining Life:	3	Years

Replacement budget: \$10,000

### 3.13 RESERVE FUND STUDY UPDATE

We have included the cost of the reserve fund study in the following budget.

Expected Normal Life:	5	Years
Present Equivalent Age:	0	Years
Estimated Remaining Life:	5	Years

Update budget: \$10,800

## A4.0 ROOFING SYSTEMS

The following section provides information regarding the building roof components that will eventually require replacement. Failure of some of these components can cause water penetration to occur and could reduce the life of the overall building structure. We have not included budgets for the underlying structural components since it is anticipated that replacement of these members will not be required assuming that the roof is maintained in good condition.

We recommend performing annual roofing inspections as part of a preventative maintenance program, and that the Estimated Remaining Life of the roofing be revised as appropriate. If any evidence of moisture infiltration is identified, remedial waterproofing should be initiated promptly to mitigate damage.

### 4.01 BUILT-UP ROOFING SYSTEM

The roof systems on buildings 2, 5, and 9 consist of conventional built-up asphalt with embedded gravel ballast. We understand that these roofs will be replaced with a new conventional SBS modified sheet membrane roof system. The following budget includes replacement of the built-up roofing system with the SBS modified sheet membrane.

Expected Normal Life:	25	Years
Present Equivalent Age:	19	Years
Estimated Remaining Life:	6	Years

Replacement budget: \$675,000

#### 4.02 MODIFIED SBS ROOFING SYSTEM

The roof systems on buildings 1, 3, 4, 6, 7, and 8 consist of a conventional SBS modified sheet membrane. We were not informed of any moisture ingress through the roof membrane at the time of our review. A budget has been included for total replacement of the roof assembly including membranes and flashings.



Photograph 18: Typical SBS Roof

Expected Normal Life:	25	Years
Present Equivalent Age:	9	Years
Estimated Remaining Life:	16	Years

Replacement budget: \$1,325,000

#### 4.03 ASPHALT SHINGLES - CLUBHOUSE

The clubhouse sloped roof is finished with glass fibre based asphalt shingles, which were replaced in 2016. These are considered square butt strip shingles. Typically, shingles are laid so they overlap and cover each other to shed water off the roof. A factory applied self-sealing adhesive allows shingle tabs to be adhered to the roof for some increased wind protection. The shingles will experience deterioration due to wetting and drying, UV deterioration, and possibly hail and driving winds.

No notable defects were observed during our review, although we did not access the roof. Budgets include replacement of the existing roofing materials and replacement of roof vents as required at the time.

Expected Normal Life:	25	Years
Present Equivalent Age:	1	Year
Estimated Remaining Life:	24	Years

Replacement budget: \$23,000

#### A5.0 MECHANICAL SYSTEMS

Replacement of the various mechanical systems and equipment has been included in the reserve fund study. A report on present conditions and recommendations by EnerMac Consultants Inc. is included below. The various mechanical systems do comprise a significant portion of the overall building costs. Integral components found in the common areas include piping, valves, and pumps, heating, and cooling systems. The life of these components will vary depending on the level of service and maintenance performed. It is therefore important to note that the life expectancies for these systems are estimates and that the actual life might exceed what is noted below if they are well maintained.

No calculations or testing of the systems or equipment have been undertaken to ascertain the internal condition or capacities of the mechanical systems to meet the heating, cooling, ventilation or the domestic plumbing and fire protection requirements of this building.

In general, historical data provides an average timeline that a component should be expected to last under manufacturer's specified maintenance. Present equivalent age is based on historical data, maintenance logbooks, and a visual review to determine the condition of the component. The estimated remaining life is determined from these factors. Regular maintenance, cleaning, and servicing will have a direct impact on equipment life.

Replacement occurs when a component has reached the end of its expected normal life. It is not advantageous economically to rebuild a component when it has reached or is nearing the end of its expected normal life. Technological up-grades and energy efficient components may justify early replacement of some equipment prior to its design life being reached.

Mechanical systems may have a direct effect on the building envelope. Improper operation not only affects the mechanical components but also the entire seal of the building.

## HEATING BOILERS

Twenty-four heating boilers of various manufacturers, sizes and energy efficiency are installed in the mechanical rooms throughout the complex. It is our understanding that the boilers are being replaced on an "as needed basis". Glycol, is currently the preferred chemical treatment for these systems.



Photograph 19: New Heating Boiler

### 5.01 HEATING BOILERS (1999)

Expected Normal Life:	30	Years
Present Equivalent Age:	18	Years
Estimated Remaining Life:	12	Years

Replacement budget: \$20,000

### 5.02 HEATING BOILERS (2005)

Expected Normal Life:	30	Years
Present Equivalent Age:	12	Years
Estimated Remaining Life:	18	Years



Photograph 20: Old Model Boiler

Replacement budget: \$130,000

### 5.03 HEATING BOILERS (2010)

Expected Normal Life:	30	Years
Present Equivalent Age:	7	Years
Estimated Remaining Life:	23	Years

Replacement budget: \$10,000

### 5.04 HEATING BOILERS (2014)

Expected Normal Life:	30	Years
Present Equivalent Age:	3	Years
Estimated Remaining Life:	27	Years

Replacement budget: \$80,000

### 5.05 HEATING FURNACE (CLUBHOUSE)

One Carrier 156,000 Btu heating furnace supplies the clubhouse with heat and cooling through the forced air system. No problems were reported at the time of site review.

Expected Normal Life:	25	Years
Present Equivalent Age:	17	Years
Estimated Remaining Life:	8	Years



Photograph 21: Clubhouse Furnace

Replacement budget: \$9,000

### 5.06 BOILER / DOMESTIC HOT WATER FLUES

Flues extending from the mechanical rooms to the building exterior rooftops are included in this section. These flues require annual inspection. This expenditure has been spread over 24 years.

Expected Normal Life:	35	Years
Present Equivalent Age:	20	Years
Estimated Remaining Life:	15	Years

Replacement budget: \$144,000

### 5.07 FURNACE FLUE (CLUBHOUSE)

One furnace flue extends from the clubhouse mechanical room to the exterior roof. No problems were reported at the time of review.

Expected Normal Life:	35	Years
Present Equivalent Age:	17	Years
Estimated Remaining Life:	18	Years

Replacement budget: \$2,000

## 5.08 BOILER CONTROLLERS (2005)

Johnson boiler controllers are installed in each mechanical room. These boiler controllers allow for the energy efficiency of the boilers at differential temperatures.

Expected Normal Life:	20	Years
Present Equivalent Age:	12	Years
Estimated Remaining Life:	8	Years

Replacement budget: \$66,000

## 5.09 BOILER CONTROLLERS (2013)

Installed in building 3-2 is the Tekmar boiler controller.

Expected Normal Life:	20	Years
Present Equivalent Age:	4	Years
Estimated Remaining Life:	16	Years



Photograph 22: New Boiler Control

Replacement budget: \$3,000

## 5.10 BOILER PUMP AND MOTOR

During the renovations after the fire in building 3-2, a boiler pump and motor was added to the heating system. This pump helps circulate the heated water through the boiler.

Expected Normal Life:	25	Years
Present Equivalent Age:	4	Years
Estimated Remaining Life:	21	Years

Replacement budget: \$2,000

## HEATING PUMPS AND MOTORS

Various manufacturers, sizes and energy efficient heating pumps are installed in the mechanical rooms throughout the project. These pumps circulate the water heated by the boilers to the heating system.

## 5.11 HEATING PUMPS AND MOTORS (1999)

Expected Normal Life:	25	Years
Present Equivalent Age:	18	Years
Estimated Remaining Life:	7	Years



Photograph 23: New Heating Pump

Replacement budget: \$8,000

#### 5.12 HEATING PUMPS AND MOTORS (2005)

Expected Normal Life:	25	Years
Present Equivalent Age:	12	Years
Estimated Remaining Life:	13	Years

Replacement budget: \$30,000

#### 5.13 HEATING PUMPS AND MOTORS (2011)

Expected Normal Life:	25	Years
Present Equivalent Age:	6	Years
Estimated Remaining Life:	19	Years

Replacement budget: \$2,000

#### 5.14 HEATING PUMPS AND MOTORS (2014)

Expected Normal Life:	25	Years
Present Equivalent Age:	3	Years
Estimated Remaining Life:	22	Years

Replacement budget: \$8,000

#### 5.15 EXPANSION TANKS

Three original expansion tanks are installed in the complex. These tanks have surpassed their expected normal life cycles. Replacement is anticipated in the near term.

Expected Normal Life:	30	Years
Present Equivalent Age:	27	Years
Estimated Remaining Life:	3	Years



Photograph 25: Expansion Tank

Replacement budget: \$6,000

#### 5.16 CUSHION TANKS (2005)

Thirteen small cushion tanks are located in the building mechanical rooms. These tanks allow for the expansion and contraction of the heating / cold water at temperature differentials.

Expected Normal Life:	30	Years
Present Equivalent Age:	12	Years
Estimated Remaining Life:	18	Years



Photograph 26: Cushion Tank

Replacement budget: \$26,000

### 5.17 CUSHION TANKS (2015)

Eight cushion tanks have been replaced over the last five years. An average age has been established for the purpose of this report.

Expected Normal Life:	30	Years
Present Equivalent Age:	2	Years
Estimated Remaining Life:	28	Years

Replacement budget: \$16,000

### 5.18 ZONE VALVES AND THERMOSTATS

Zone valves and thermostats are located within the individual units, hallways and common rooms. As these components directly affect the building systems it is recommended that the Board implement these into a Corporation replacement program. It is our understanding that these components are being replaced on an "as needed basis".

Expected Normal Life:	30	Years
Present Equivalent Age:	20	Years
Estimated Remaining Life:	10	Years

Replacement budget: \$144,000

### 5.19 HEATING PIPING

The hallways and unit distribution heating piping supplies hot water through the radiant heating system.

We offer the following comments and observations:

Isolated leaks should be repaired on an "as needed" basis, however replacement should be considered when more economical than select repair. Monitoring and recording locations and frequency of pipe leaks will help to determine when a replacement program should be implemented. Also, ultra-sonic testing of selected areas of piping can be completed in the future to determine remaining pipe wall thickness. This is a non-destructive test that could help to provide information on localized areas of the pipe and may help to predict the condition of the system and when replacement is necessary.

Budgets have been provided for replacement of the distribution piping based on the approximate distribution area. The actual replacement costs will be influenced by factors such as the quality, quantity, and configuration of the piping installation and the quality of interior finishes that will be affected during the work. The present equivalent age and expenditure spread have been adjusted to indicate a long term phased replacement.

Expected Normal Life:	45	Years
Present Equivalent Age:	34	Years
Estimated Remaining Life:	11	Years

Replacement budget: \$2,900,000



## DOMESTIC HOT WATER HEATERS

Housed in the mechanical rooms of each building are domestic water heaters comprised from various manufacturers with varying degrees of energy and size. These heaters supply heated domestic water to the residents.



Photograph 27: Common Domestic Water Heater

### 5.20 DOMESTIC HOT WATER HEATERS (1997)

Expected Normal Life:	15	Years
Present Equivalent Age:	14	Years
Estimated Remaining Life:	1	Year

Replacement budget: \$18,000

### 5.21 DOMESTIC HOT WATER HEATERS (2003)

Expected Normal Life:	15	Years
Present Equivalent Age:	12	Years
Estimated Remaining Life:	3	Years

Replacement budget: \$63,000

### 5.22 DOMESTIC HOT WATER HEATERS (2005)

Expected Normal Life:	15	Years
Present Equivalent Age:	10	Years
Estimated Remaining Life:	5	Years

Replacement budget: \$72,000

### 5.23 DOMESTIC HOT WATER HEATERS (2010)

Expected Normal Life:	15	Years
Present Equivalent Age:	7	Years
Estimated Remaining Life:	8	Years

Replacement budget: \$9,000

### 5.24 DOMESTIC HOT WATER HEATERS (2011)

Expected Normal Life:	15	Years
Present Equivalent Age:	6	Years
Estimated Remaining Life:	9	Years

Replacement budget: \$36,000



## 5.25 DOMESTIC HOT WATER HEATERS (2015)

Expected Normal Life:	15	Years
Present Equivalent Age:	2	Years
Estimated Remaining Life:	13	Years

Replacement budget: \$27,000

## 5.26 DOMESTIC HOT WATER HEATER (2016) CLUBHOUSE

Located in the clubhouse mechanical room is the newly installed John Wood 71,500 Btu 74 US gallon domestic hot water heater. It is our understanding that this heater was replaced in 2016. No problems were reported with this heater.

Expected Normal Life:	15	Years
Present Equivalent Age:	1	Year
Estimated Remaining Life:	2	Years



Photograph 28: Clubhouse Domestic Hot Water Heater

Replacement budget: \$3,000

## 5.27 DOMESTIC HOT WATER RECIRCULATION PUMPS AND MOTORS

Located within each of the mechanical rooms are various recirculation pumps. These pumps help to ensure even circulation of hot water through the system.

Expected Normal Life:	15	Years
Present Equivalent Age:	12	Years
Estimated Remaining Life:	3	Years



Photograph 29: Domestic Hot Water Recirculation Pump

Replacement budget: \$40,000

## 5.28 DOMESTIC HOT WATER RECIRCULATION PUMPS AND MOTORS (2010 CLUBHOUSE)

Expected Normal Life:	15	Years
Present Equivalent Age:	7	Years
Estimated Remaining Life:	8	Years

Replacement budget: \$2,000

## 5.29 DOMESTIC HOT WATER RECIRCULATION PUMPS AND MOTORS (2015)

Expected Normal Life:	15	Years
Present Equivalent Age:	2	Years
Estimated Remaining Life:	13	Years

Replacement budget: \$8,000

## 5.30 DOMESTIC WATER PIPING

The domestic water piping was noted to be copper with brass valves, copper intake, copper risers and copper distribution. This system has backflow protection installed. Sectional piping replacement has been completed using PEX piping.

This system was not originally installed with the use of PEX piping. Recent history has identified some problems with some types of PEX piping. It is recommended that this system remain a copper and brass system and that the current PEX piping installed be monitored.



Photograph 30: PEX Piping

The actual timing of the replacement and costs will be influenced by factors such as the quality, quantity and configuration of the piping and its installation and the quality of interior finishes that will be affected during the work. The timing of the replacement of the piping will be a function of the rate of failure that occurs in the building. Isolated leaks can be repaired on an "as needed" basis; however, replacement should be considered when frequency and extent of leaks increases significantly. Monitoring and recording dates and locations of pipe leaks will help to determine when a replacement program should be implemented. Also, ultra-sonic testing of selected areas of piping can be completed in the future to determine remaining pipe wall thickness. This is a non-destructive test that could help to provide information on localized areas of the pipe and may help to predict the condition of the system and when replacement is necessary. The present equivalent age and expenditure spread have been adjusted to indicate a long term phased replacement

Expected Normal Life:	45	Years
Present Equivalent Age:	36	Years
Estimated Remaining Life:	9	Years

Replacement budget: \$3,300,000

## 5.31 CLUBHOUSE WATER PIPING

This section is for replacement of water piping in the clubhouse. No problems were reported during site review.

Expected Normal Life:	45	Years
Present Equivalent Age:	37	Years
Estimated Remaining Life:	8	Years

Replacement budget: \$7,500

### 5.32 EXHAUST FANS

The exhaust fans are housed in the clubhouse. This includes one wall mounted fan and two common washroom fans. No problems were identified with these fans during site review.

Expected Normal Life:	30	Years
Present Equivalent Age:	23	Years
Estimated Remaining Life:	7	Years

Replacement budget: \$8,000

### 5.33 CONDENSER (CLUBHOUSE)

On the exterior ground level of the clubhouse is the Carrier three-ton condenser. This unit is part of the cooling system of the building. This condenser was added to the system in 2000.

Expected Normal Life:	30	Years
Present Equivalent Age:	17	Years
Estimated Remaining Life:	13	Years

Replacement budget: \$6,000

### 5.34 SUMP PUMP (2013)

One sump pump is located in the clubhouse. Semi-annual testing is recommended.

Expected Normal Life:	10	Years
Present Equivalent Age:	4	Years
Estimated Remaining Life:	6	Years

Replacement budget: \$2,000

### 5.35 SUMP PUMP (2016)

A second sump pump was added in 2016.

Expected Normal Life:	10	Years
Present Equivalent Age:	1	Year
Estimated Remaining Life:	9	Years

Replacement budget: \$2,000

### 5.36 APPLIANCES

Included in this section are all appliances that are housed in the clubhouse. This includes the refrigerator, stove, microwave range hood and dishwasher.

Expected Normal Life:	20	Years
Present Equivalent Age:	12	Years
Estimated Remaining Life:	8	Years

Replacement budget: \$3,500

### 5.37 ELECTRONIC EQUIPMENT

A Panasonic television, video system and RCA stereo system are provided in the clubhouse.

Expected Normal Life:	20	Years
Present Equivalent Age:	16	Years
Estimated Remaining Life:	4	Years

Replacement budget: \$2,500

### 5.38 OFFICE EQUIPMENT

One computer and two printers comprise this section. These are components are owned by the Corporation and therefore included in this report.

Expected Normal Life:	10	Years
Present Equivalent Age:	8	Years
Estimated Remaining Life:	2	Years

Replacement budget: \$3,000

### 5.39 MISCELLANEOUS

Included in this section is the gas fireplace in the clubhouse and twenty-five small Husky built-in vacuums. It is our understanding that the vacuums' are currently not being utilized although they are operational. For the purpose of this report budgets have been included for their replacement.

Expected Normal Life:	25	Years
Present Equivalent Age:	19	Years
Estimated Remaining Life:	6	Years

Replacement budget: \$12,000

### 5.40 UNDERGROUND SERVICES

The storm and sanitary services consist of the underground lines that could be constructed of concrete and/or cast iron, which can deteriorate over time. Visual inspection of these underground services was not performed as part of this report.

A budget for selective replacement of these components has been included in the reserve fund calculations. Typically, the sewer piping will not require complete replacement but may have sectional failures. We have not allowed for full replacement of the various underground service lines at this time however, we have provided an allowance for selected repair/replacement of lengths of pipe. Should repairs become significant or too frequent, replacement of the systems could be required.

Expected Normal Life:	50	Years
Present Equivalent Age:	35	Years
Estimated Remaining Life:	15	Years

Select repair budget: \$300,000

## A6.0 ELECTRICAL SYSTEMS

Replacement of electrical systems and equipment has been included in the reserve fund. The electrical systems within the units are not part of common property and are not included in the reserve fund calculations.

During review, it was noted that energy efficient light bulbs are being utilized.

A proper preventive maintenance schedule typically includes periodic cleaning and infrared scans of all panel, disconnects, motor starters and distribution centres. It is recommended that this practise be implemented. In addition, it would be anticipated that such a maintenance program would need to be increased in frequency as the building ages.

### 6.01 LIGHTING SYSTEM

The buildings lighting systems set out in this report is for the replacement of the lighting fixtures within the common area hallways/vestibules, and exterior.

Expected Normal Life:	35	Years
Present Equivalent Age:	17	Years
Estimated Remaining Life:	18	Years

Replacement budget: \$270,000

### 6.02 BUILDING EXTERIOR CANOPY LIGHTING

We understand the exterior awning lights were recently replaced with LED lighting.

Expected Normal Life:	20	Years
Present Equivalent Age:	0	Year
Estimated Remaining Life:	20	Years

Replacement budget: \$3,000

### 6.03 ELECTRICAL DISTRIBUTION

Budgets have been included for the electrical disconnects, equipment disconnects, and distribution centres located throughout the property, which provide for electrical distribution of the buildings. Regular cleaning and infrared scanning of the electrical system is recommended.

Expected Normal Life:	45	Years
Present Equivalent Age:	36	Years
Estimated Remaining Life:	9	Years

Replacement budget: \$280,000

### 6.04 ELECTRICAL UNIT HEATERS

Two electric unit heaters are installed at the entrance / exits of the clubhouse.

Expected Normal Life:	30	Years
Present Equivalent Age:	25	Years
Estimated Remaining Life:	5	Years

Replacement budget: \$2,000

## 6.05 INTERCOMS

All intercoms on the property were replaced with Kantech Mircom intercoms. This replacement was completed in March of 2017.

Expected Normal Life:	20	Years
Present Equivalent Age:	0	Year
Estimated Remaining Life:	20	Years



Photograph 31: New Intercom

Replacement budget: \$72,000

## 6.06 KEYLESS ACCESS SYSTEM

A keyless access system was added to each building in 2017.

Expected Normal Life:	20	Years
Present Equivalent Age:	0	Year
Estimated Remaining Life:	20	Years

Replacement budget: \$98,000

## A7.0 FIRE SAFETY SYSTEMS

In this section, allowances have been made for replacement of the fire safety systems within the building. It is our understanding that the fire alarm system is tested and serviced on an annual basis.

### 7.01 FIRE ALARM SYSTEM

The fire system is comprised of bells, pulls, smoke detectors and heat sensors.

Expected Normal Life:	30	Years
Present Equivalent Age:	23	Years
Estimated Remaining Life:	7	Years

Replacement budget: \$140,000

#### FIRE ALARM PANELS

Various manufacturer brands of fire panels have been installed throughout the property. Upgrades of these panels is being completed on an "as needed basis".



Photograph 32: Typical Fire Alarm Panel

#### 7.02 FIRE ALARM PANELS (2000)

Expected Normal Life:	30	Years
Present Equivalent Age:	17	Years
Estimated Remaining Life:	13	Years

Replacement budget: \$50,000

#### 7.03 FIRE ALARM PANEL (2006)

Expected Normal Life:	30	Years
Present Equivalent Age:	11	Years
Estimated Remaining Life:	19	Years

Replacement budget: \$10,000

#### 7.04 FIRE ALARM PANEL (2010)

Expected Normal Life:	30	Years
Present Equivalent Age:	7	Years
Estimated Remaining Life:	23	Years

Replacement budget: \$10,000

#### 7.05 FIRE ALARM PANEL (2012)

Expected Normal Life:	30	Years
Present Equivalent Age:	5	Years
Estimated Remaining Life:	25	Years

Replacement budget: \$10,000

#### 7.06 FIRE ALARM PANEL (2013)

Expected Normal Life:	30	Years
Present Equivalent Age:	4	Years
Estimated Remaining Life:	26	Years

Replacement budget: \$10,000

## APPENDIX B

### RESERVE FUND CALCULATIONS

**Items Schedule**

**Expenditure Schedule**

**Cash Flow Projections**



Southampton Green (Plan No. 9813260)			25 YEAR PROJECTION		CAPITAL REPLACEMENT ITEMS SCHEDULE				
Financial Analysis for Year Ended:			2017						
Date of Study:			May-2017						
Anticipated Fund Balance:			\$2,550,000						
RJC Job #			CAL106642.0003						
Interest Rate :			3.0%						
Inflation Rate:			2.0%						
			Budget Cost For Repair or Replacement (present \$'s)	Expenditure Spread (years)	Expenditure per year (present \$'s)	Expected Normal Life (Years)	Present Equivalent Age (years)	Estimated Life Remaining (years)	Total Budget Cost Over 25 (present \$'s)
Item	Description of work								
BUILDING INTERIOR COMMON PROPERTY									
1.01	Common Area Painted Finishes	Renovate	\$130,000	3	\$43,333	15	5	10	\$216,667
1.02	Common Area Carpet Flooring	Renovate	\$175,000	1	\$175,000	15	9	6	\$350,000
1.03	Common Area Interior Doors	Replace	\$300,000	15	\$20,000	45	30	15	\$300,000
1.04	Common Area Finishes - Clubhouse Basement	Renovate	\$30,000	2	\$15,000	20	0	20	\$30,000
1.05	Common Area Finishes - Clubhouse Upper Floors	Renovate	\$20,000	1	\$20,000	15	11	4	\$40,000
1.06	Common Area Interior Doors - Clubhouse	Replace	\$8,000	1	\$8,000	45	30	15	\$8,000
1.07	Clubhouse Furniture Allowance	Replace	\$5,000	1	\$5,000	20	15	5	\$10,000
1.08	Clubhouse Fitness Equipment	Renovate	\$11,000	1	\$11,000	15	8	7	\$22,000
BUILDING EXTERIOR COMMON PROPERTY									
2.01	Cedar Siding - Paint	Restore	\$145,000	1	\$145,000	10	6	4	\$435,000
2.02	Cedar Siding - Replace	Replace	\$1,340,000	9	\$148,889	50	35	15	\$1,340,000
2.03	Wood Soffit - Paint	Restore	\$43,000	1	\$43,000	10	6	4	\$129,000
2.04	Wood Soffit - Replace	Replace	\$230,000	9	\$25,556	50	35	15	\$230,000
2.05	Cedar Shingles - Selective Repair	Restore	\$100,000	1	\$100,000	10	5	5	\$300,000
2.06	Cedar Shingles - Replace	Replace	\$1,485,000	9	\$165,000	50	37	13	\$1,485,000
2.07	Operable and Fixed Window Units - Residential	Replace	\$600,000	9	\$66,667	30	8	22	\$533,333
2.08	Operable and Fixed Window Units - Clubhouse & Sidelights	Replace	\$70,000	1	\$70,000	35	30	5	\$70,000
2.09	Exterior Building Sealants	Replace	\$140,000	2	\$70,000	15	10	5	\$280,000
2.10	Exterior Balcony and Patio Doors	Replace	\$475,000	3	\$158,333	30	7	23	\$475,000
2.11	Building Entrance Doors	Replace	\$90,000	2	\$45,000	35	35	0	\$45,000
2.12	Storage and Service Doors	Replace	\$200,000	6	\$33,333	50	30	20	\$200,000
2.13	Balcony Railings - Restoration	Restore	\$15,000	1	\$15,000	5	1	4	\$75,000
2.14	Balcony Concrete Topping	Restore	\$25,000	1	\$25,000	5	2	3	\$125,000
2.15	Eavestrough and Downspouts	Replace	\$15,000	1	\$15,000	20	10	10	\$15,000
2.16	Entrance Awnings	Replace	\$50,000	1	\$50,000	20	13	7	\$50,000
2.17	Parging	Restore	\$10,000	1	\$10,000	15	12	3	\$20,000
EXTERIOR LANDSCAPE & MISCELLANEOUS									
3.01	Concrete Elements	Restore	\$5,000	1	\$5,000	5	2	3	\$25,000
3.02	Staircase Railings - Entranceways	Replace	\$131,000	1	\$131,000	45	6	39	\$0
3.03	Staircase Railings - Walkways	Replace	\$15,000	2	\$7,500	45	27	18	\$15,000
3.04	Steel Staircase	Replace	\$25,000	1	\$25,000	7	2	5	\$75,000
3.05	Asphalt Pavement	Restore	\$215,000	1	\$215,000	35	25	10	\$215,000
3.06	Tennis Court	Restore	\$25,000	1	\$25,000	25	24	1	\$25,000
3.07	Wood Retaining Walls	Replace	\$25,000	1	\$25,000	20	10	10	\$25,000
3.08	Garbage Enclosures - Stain/Paint	Restore	\$2,000	1	\$2,000	5	1	4	\$10,000
3.09	Garbage Enclosures - Replace	Replace	\$10,000	2	\$5,000	25	25	0	\$10,000
3.10	Chain Link Fence	Replace	\$13,000	1	\$13,000	50	39	11	\$13,000
3.11	Playground Equipment	Replace	\$30,000	1	\$30,000	25	17	8	\$30,000
3.12	Playground Rubber Floor Resurfacing	Replace	\$10,000	1	\$10,000	15	12	3	\$20,000
3.13	Reserve Fund Study	Update	\$10,800	1	\$10,800	5	0	5	\$54,000
ROOFING SYSTEMS									
4.01	Built-Up Roofing System	Replace	\$675,000	3	\$225,000	25	19	6	\$675,000
4.02	Modified SBS Roofing System	Replace	\$1,325,000	5	\$265,000	25	9	16	\$1,325,000
4.03	Asphalt Shingles - Clubhouse	Replace	\$23,000	1	\$23,000	25	1	24	\$23,000

Southampton Green (Plan No. 9813260)			25 YEAR PROJECTION		CAPITAL REPLACEMENT ITEMS SCHEDULE				
Financial Analysis for Year Ended:			2017						
Date of Study:			May-2017						
Anticipated Fund Balance:			\$2,550,000						
RJC Job #			CAL106642.0003						
Interest Rate :			3.0%						
Inflation Rate:			2.0%						
			Budget Cost For Repair or Replacement (present \$'s)	Expenditure Spread (years)	Expenditure per year (present \$'s)	Expected Normal Life (Years)	Present Equivalent Age (years)	Estimated Life Remaining (years)	Total Budget Cost Over 25 (present \$'s)
Item	Description of work								
MECHANICAL SYSTEMS									
5.01	Heating Boilers (1999)	replace	\$20,000	2	\$10,000	30	18	12	\$20,000
5.02	Heating Boilers (2005)	replace	\$130,000	13	\$10,000	30	12	18	\$130,000
5.03	Heating Boilers (2010)	replace	\$10,000	1	\$10,000	30	7	23	\$10,000
5.04	Heating Boilers (2014)	replace	\$80,000	8	\$10,000	30	3	27	\$20,000
5.05	Heating Furnace (Clubhouse)	replace	\$9,000	1	\$9,000	25	17	8	\$9,000
5.06	Boiler / Domestic Hot Water Flues	replace	\$144,000	24	\$6,000	35	20	15	\$132,000
5.07	Furnace Flue (Clubhouse)	replace	\$2,000	1	\$2,000	35	17	18	\$2,000
5.08	Boiler Controllers (2005)	replace	\$66,000	23	\$2,870	20	12	8	\$71,739
5.09	Boiler Controller (2010)	replace	\$3,000	1	\$3,000	20	4	16	\$3,000
5.10	Boiler Pump and Motor	replace	\$2,000	1	\$2,000	25	4	21	\$2,000
5.11	Heating Pumps and Motors (1999)	replace	\$8,000	4	\$2,000	25	18	7	\$8,000
5.12	Heating Pumps and Motors (2005)	replace	\$30,000	15	\$2,000	25	12	13	\$30,000
5.13	Heating Pumps and Motors (2011)	replace	\$2,000	1	\$2,000	25	6	19	\$2,000
5.14	Heating Pumps and Motors (2014)	replace	\$8,000	4	\$2,000	25	3	22	\$8,000
5.15	Expansion Tanks	replace	\$6,000	3	\$2,000	30	27	3	\$6,000
5.16	Cushion Tanks (2005)	replace	\$26,000	13	\$2,000	30	12	18	\$26,000
5.17	Cushion Tanks (2015)	replace	\$16,000	8	\$2,000	30	2	28	\$2,000
5.18	Zone Valves and Thermostats	replace	\$144,000	24	\$6,000	30	20	10	\$132,000
5.19	Heating Piping	replace	\$2,900,000	12	\$241,667	45	34	11	\$2,900,000
5.20	Domestic Hot Water Heaters (1997)	replace	\$18,000	2	\$9,000	15	14	1	\$36,000
5.21	Domestic Hot Water Heaters (2003)	replace	\$63,000	7	\$9,000	15	12	3	\$117,000
5.22	Domestic Hot Water Heaters (2005)	replace	\$72,000	8	\$9,000	15	10	5	\$144,000
5.23	Domestic Hot Water Heaters (2010)	replace	\$9,000	1	\$9,000	15	7	8	\$18,000
5.24	Domestic Hot Water Heaters (2011)	replace	\$36,000	4	\$9,000	15	6	9	\$63,000
5.25	Domestic Hot Water Heaters (2015)	replace	\$27,000	3	\$9,000	15	2	13	\$27,000
5.26	Domestic Hot Water Heater (2016) CH	replace	\$3,000	1	\$3,000	15	1	14	\$3,000
5.27	Domestic Hot Water Recirculation Pumps	replace	\$40,000	20	\$2,000	15	12	3	\$50,000
5.28	Dom Hot Water Recirculation Pump (2010) CH	replace	\$2,000	1	\$2,000	15	7	8	\$4,000
5.29	Dom Hot Water Recirculation Pumps (2015)	replace	\$8,000	4	\$2,000	15	2	13	\$8,000
5.30	Domestic Water Piping	replace	\$3,300,000	12	\$275,000	45	36	9	\$3,300,000
5.31	Clubhouse Water Piping	replace	\$7,500	1	\$7,500	45	37	8	\$7,500
5.32	Exhaust Fans	replace	\$8,000	3	\$2,667	30	23	7	\$8,000
5.33	Condenser (Clubhouse)	replace	\$6,000	1	\$6,000	30	17	13	\$6,000
5.34	Sump Pump (2013)	replace	\$2,000	1	\$2,000	10	4	6	\$4,000
5.35	Sump Pump (2016)	replace	\$2,000	1	\$2,000	10	1	9	\$4,000
5.36	Appliances	replace	\$3,500	4	\$875	20	12	8	\$3,500
5.37	Electronic Equipment	replace	\$2,500	3	\$833	20	16	4	\$5,000
5.38	Office Equipment	replace	\$3,000	3	\$1,000	10	8	2	\$9,000
5.39	Miscellaneous	replace	\$12,000	1	\$12,000	25	19	6	\$12,000
5.40	Underground Services	replace	\$300,000	5	\$60,000	50	35	15	\$300,000
ELECTRICAL SYSTEMS									
6.01	Lighting System	replace	\$270,000	10	\$27,000	35	17	18	\$270,000
6.02	Building Exterior Canopy Lighting	replace	\$3,000	1	\$3,000	20	0	20	\$3,000
6.03	Electrical Distribution	replace	\$280,000	10	\$28,000	45	36	9	\$280,000
6.04	Electrical Unit Heaters	replace	\$2,000	2	\$1,000	30	25	5	\$2,000
6.05	Intercoms	replace	\$72,000	5	\$14,400	20	0	20	\$72,000
6.06	Keyless Access System	replace	\$98,000	1	\$98,000	20	0	20	\$98,000
FIRE SAFETY SYSTEM									
7.01	Fire Alarm System	replace	\$140,000	10	\$14,000	30	23	7	\$140,000
7.02	Fire Alarm Panel (2000)	replace	\$50,000	5	\$10,000	30	17	13	\$50,000
7.03	Fire Alarm Panel (2006)	replace	\$10,000	1	\$10,000	30	11	19	\$10,000
7.04	Fire Alarm Panel (2010)	replace	\$10,000	1	\$10,000	30	7	23	\$10,000
7.05	Fire Alarm Panel (2012)	replace	\$10,000	1	\$10,000	30	5	25	\$10,000
7.06	Fire Alarm Panel (2013)	replace	\$10,000	1	\$10,000	30	4	26	\$0
Total Expenditures For 25 Year Period:									
									\$17,521,739

Southampton Green (Plan No. 9813260)																	
Financial Analysis for Year Ended: 2017 Date of Study: May-17 Anticipated Fund Balance: \$2,550,000 RJC Job # CAL106642.0003 Interest Rate : 3.0% Inflation Rate: 2.0%																	
Item	Description	Year-->	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BUILDING INTERIOR COMMON PROPERTY																	
1.01	Common Area Painted Finishes	Renovate									\$43,333	\$43,333	\$43,333				
1.02	Common Area Carpet Flooring	Replace						\$175,000									
1.03	Common Area Interior Doors	Replace								\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
1.04	Common Area Finishes - Clubhouse Basement	Renovate															
1.05	Common Area Finishes - Clubhouse Upper Floors	Renovate				\$20,000											
1.06	Common Area Interior Doors - Clubhouse	Replace															\$8,000
1.07	Clubhouse Furniture Allowance	Replace					\$5,000										
1.08	Clubhouse Fitness Equipment	Replace							\$11,000								
BUILDING EXTERIOR COMMON PROPERTY																	
2.01	Cedar Siding - Paint	Restore				\$145,000										\$145,000	
2.02	Cedar Siding - Replace	Replace											\$148,889	\$148,889	\$148,889	\$148,889	\$148,889
2.03	Wood Soffit - Paint	Restore				\$43,000										\$43,000	
2.04	Wood Soffit - Replace	Replace											\$25,556	\$25,556	\$25,556	\$25,556	\$25,556
2.05	Cedar Shingles - Selective Repair	Restore					\$100,000										\$100,000
2.06	Cedar Shingles - Replace	Replace									\$165,000	\$165,000	\$165,000	\$165,000	\$165,000	\$165,000	\$165,000
2.07	Operable and Fixed Window Units - Residential	Replace															
2.08	Operable and Fixed Window Units - Clubhouse & Sidelights	Replace					\$70,000										
2.09	Exterior Building Sealants	Replace					\$70,000	\$70,000									
2.10	Exterior Balcony and Patio Doors	Replace															
2.11	Building Entrance Doors	Replace	\$45,000														
2.12	Storage and Service Doors	Replace															
2.13	Balcony Railings - Restoration	Restore				\$15,000					\$15,000					\$15,000	
2.14	Balcony Concrete Topping	Restore			\$25,000					\$25,000					\$25,000		
2.15	Eavestrough and Downspouts	Replace										\$15,000					
2.16	Entrance Awnings	Replace							\$50,000								
2.17	Parging	Replace			\$10,000												
EXTERIOR LANDSCAPE & MISCELLANEOUS																	
3.01	Concrete Elements	Repair			\$5,000					\$5,000					\$5,000		
3.02	Staircase Railings - Entranceways	Replace															
3.03	Staircase Railings - Walkways	Replace															
3.04	Steel Staircase	Replace					\$25,000							\$25,000			
3.05	Asphalt Pavement	Restore										\$215,000					
3.06	Tennis Court	Restore	\$25,000														
3.07	Wood Retaining Walls	Replace										\$25,000					
3.08	Garbage Enclosures - Stain/Paint	Restore				\$2,000					\$2,000					\$2,000	
3.09	Garbage Enclosures - Replace	Replace	\$5,000														
3.10	Chain Link Fence	Replace											\$13,000				
3.11	Playground Equipment	Replace								\$30,000							
3.12	Playground Rubber Floor Resurfacing	Replace			\$10,000												
3.13	Reserve Fund Study	Update					\$10,800					\$10,800					\$10,800
ROOFING SYSTEMS																	
4.01	Built-Up Roofing System	Replace					\$225,000	\$225,000	\$225,000								
4.02	Modified SBS Roofing System	Replace														\$265,000	\$265,000
4.03	Asphalt Shingles - Clubhouse	Replace															

Southampton Green (Plan No. 9813260)																	
Financial Analysis for Year Ended: 2017 Date of Study: May-17 Anticipated Fund Balance: \$2,550,000 RJC Job # CAL106642.0003 Interest Rate : 3.0% Inflation Rate: 2.0%													➔ ADDITIONAL 5_YEARS BEYOND 25_YEAR PROJECTIONS SHOWN FOR DISCUSSION				
Item	Description	Year-->	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
BUILDING INTERIOR COMMON PROPERTY																	
1.01	Common Area Painted Finishes	Renovate									\$43,333	\$43,333	\$43,333				
1.02	Common Area Carpet Flooring	Replace						\$175,000									
1.03	Common Area Interior Doors	Replace	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000								
1.04	Common Area Finishes - Clubhouse Basement	Renovate					\$15,000	\$15,000									
1.05	Common Area Finishes - Clubhouse Upper Floors	Renovate				\$20,000											
1.06	Common Area Interior Doors - Clubhouse	Replace															
1.07	Clubhouse Furniture Allowance	Replace										\$5,000					
1.08	Clubhouse Fitness Equipment	Replace							\$11,000								
BUILDING EXTERIOR COMMON PROPERTY																	
2.01	Cedar Siding - Paint	Restore									\$145,000						
2.02	Cedar Siding - Replace	Replace	\$148,889	\$148,889	\$148,889	\$148,889											
2.03	Wood Soffit - Paint	Restore									\$43,000						
2.04	Wood Soffit - Replace	Replace	\$25,556	\$25,556	\$25,556	\$25,556											
2.05	Cedar Shingles - Selective Repair	Restore										\$100,000					
2.06	Cedar Shingles - Replace	Replace	\$165,000	\$165,000													
2.07	Operable and Fixed Window Units - Residential	Replace			\$66,667	\$66,667	\$66,667	\$66,667	\$66,667	\$66,667	\$66,667	\$66,667	\$66,667				
2.08	Operable and Fixed Window Units - Clubhouse & Sidelights	Replace															
2.09	Exterior Building Sealants	Replace					\$70,000	\$70,000									
2.10	Exterior Balcony and Patio Doors	Replace							\$158,333	\$158,333	\$158,333						
2.11	Building Entrance Doors	Replace															
2.12	Storage and Service Doors	Replace			\$33,333	\$33,333	\$33,333	\$33,333	\$33,333	\$33,333							
2.13	Balcony Railings - Restoration	Restore				\$15,000					\$15,000						
2.14	Balcony Concrete Topping	Restore			\$25,000					\$25,000							
2.15	Eavestrough and Downspouts	Replace															\$15,000
2.16	Entrance Awnings	Replace															
2.17	Parging	Replace			\$10,000										\$50,000		
EXTERIOR LANDSCAPE & MISCELLANEOUS																	
3.01	Concrete Elements	Repair			\$5,000					\$5,000							
3.02	Staircase Railings - Entranceways	Replace															
3.03	Staircase Railings - Walkways	Replace			\$7,500	\$7,500											
3.04	Steel Staircase	Replace				\$25,000								\$25,000			
3.05	Asphalt Pavement	Restore															
3.06	Tennis Court	Restore												\$25,000			
3.07	Wood Retaining Walls	Replace															\$25,000
3.08	Garbage Enclosures - Stain/Paint	Restore				\$2,000					\$2,000						
3.09	Garbage Enclosures - Replace	Replace										\$5,000	\$5,000				
3.10	Chain Link Fence	Replace															
3.11	Playground Equipment	Replace															
3.12	Playground Rubber Floor Resurfacing	Replace			\$10,000												
3.13	Reserve Fund Study	Update					\$10,800					\$10,800					
ROOFING SYSTEMS																	
4.01	Built-Up Roofing System	Replace															\$225,000
4.02	Modified SBS Roofing System	Replace	\$265,000	\$265,000	\$265,000												
4.03	Asphalt Shingles - Clubhouse	Replace									\$23,000						

Southampton Green (Plan No. 9813260)																	
Financial Analysis for Year Ended: Date of Study: Anticipated Fund Balance: RJC Job # Interest Rate : Inflation Rate:			2017 May-17 \$2,550,000 CAL106642.0003 3.0% 2.0%														
Item	Description	Year-->	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
MECHANICAL SYSTEMS																	
5.01	Heating Boilers (1999)	replace												\$10,000	\$10,000		
5.02	Heating Boilers (2005)	replace												\$10,000	\$10,000	\$10,000	\$10,000
5.03	Heating Boilers (2010)	replace															
5.04	Heating Boilers (2014)	replace															
5.05	Heating Furnace (Clubhouse)	replace								\$9,000							
5.06	Boiler / Domestic Hot Water Flues	replace				\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
5.07	Furnace Flue (Clubhouse)	replace															
5.08	Boiler Controllers (2005)	replace	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870
5.09	Boiler Controller (2010)	replace															
5.10	Boiler Pump and Motor	replace															
5.11	Heating Pumps and Motors (1999)	replace						\$2,000	\$2,000	\$2,000	\$2,000						
5.12	Heating Pumps and Motors (2005)	replace						\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
5.13	Heating Pumps and Motors (2011)	replace															
5.14	Heating Pumps and Motors (2014)	replace															
5.15	Expansion Tanks	replace		\$2,000	\$2,000	\$2,000											
5.16	Cushion Tanks (2005)	replace															
5.17	Cushion Tanks (2015)	replace												\$2,000	\$2,000	\$2,000	\$2,000
5.18	Zone Valves and Thermostats	replace	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
5.19	Heating Piping	replace						\$241,667	\$241,667	\$241,667	\$241,667	\$241,667	\$241,667	\$241,667	\$241,667	\$241,667	\$241,667
5.20	Domestic Hot Water Heaters (1997)	replace	\$9,000	\$9,000													
5.21	Domestic Hot Water Heaters (2003)	replace	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000									\$9,000
5.22	Domestic Hot Water Heaters (2005)	replace		\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000						
5.23	Domestic Hot Water Heaters (2010)	replace								\$9,000							
5.24	Domestic Hot Water Heaters (2011)	replace								\$9,000	\$9,000	\$9,000	\$9,000				
5.25	Domestic Hot Water Heaters (2015)	replace												\$9,000	\$9,000	\$9,000	
5.26	Domestic Hot Water Heater (2016) CH	replace														\$3,000	
5.27	Domestic Hot Water Recirculation Pumps	replace	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
5.28	Dom Hot Water Recirculation Pump (2010) CH	replace								\$2,000							
5.29	Dom Hot Water Recirculation Pumps (2015)	replace												\$2,000	\$2,000	\$2,000	\$2,000
5.30	Domestic Water Piping	replace				\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000	\$275,000
5.31	Clubhouse Water Piping	replace								\$7,500							
5.32	Exhaust Fans	replace						\$2,667	\$2,667	\$2,667							
5.33	Condenser (Clubhouse)	replace													\$6,000		
5.34	Sump Pump (2013)	replace						\$2,000									
5.35	Sump Pump (2016)	replace									\$2,000						
5.36	Appliances	replace							\$875	\$875	\$875	\$875					
5.37	Electronic Equipment	replace			\$833	\$833	\$833										
5.38	Office Equipment	replace	\$1,000	\$1,000	\$1,000								\$1,000	\$1,000	\$1,000		
5.39	Miscellaneous	replace						\$12,000									
5.40	Underground Services	replace													\$60,000	\$60,000	\$60,000
ELECTRICAL SYSTEMS																	
6.01	Lighting System	replace														\$27,000	\$27,000
6.02	Building Exterior Canopy Lighting	replace															
6.03	Electrical Distribution	replace					\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	
6.04	Electrical Unit Heaters	replace					\$1,000	\$1,000									
6.05	Intercoms	replace															
6.06	Keyless Access System	replace															
FIRE SAFETY SYSTEM																	
7.01	Fire Alarm System	replace			\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000	\$14,000			
7.02	Fire Alarm Panel (2000)	replace											\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
7.03	Fire Alarm Panel (2006)	replace															
7.04	Fire Alarm Panel (2010)	replace															
7.05	Fire Alarm Panel (2012)	replace															
7.06	Fire Alarm Panel (2013)	replace															
TOTALS			\$104,870	\$40,870	\$96,703	\$551,703	\$859,503	\$1,085,203	\$878,078	\$708,578	\$845,745	\$1,081,545	\$1,013,314	\$1,005,981	\$1,062,981	\$1,515,981	\$1,398,781
FUTURE DOLLARS			\$104,870	\$41,687	\$100,610	\$585,472	\$930,354	\$1,198,152	\$988,858	\$813,933	\$990,925	\$1,292,546	\$1,235,224	\$1,250,811	\$1,348,117	\$1,961,083	\$1,845,661

Southampton Green (Plan No. 9813260)													→ ADDITIONAL 5_YEARS BEYOND 25_YEAR PROJECTIONS SHOWN FOR DISCUSSION				
Financial Analysis for Year Ended:		2017															
Date of Study:		May-17															
Anticipated Fund Balance:		\$2,550,000															
RJC Job #		CAL106642.0003															
Interest Rate :		3.0%															
Inflation Rate:		2.0%															
Item	Description	Year-->	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
MECHANICAL SYSTEMS																	
5.01	Heating Boilers (1999)	replace															
5.02	Heating Boilers (2005)	replace	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000						
5.03	Heating Boilers (2010)	replace								\$10,000							
5.04	Heating Boilers (2014)	replace									\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
5.05	Heating Furnace (Clubhouse)	replace															
5.06	Boiler / Domestic Hot Water Flues	replace	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000			
5.07	Furnace Flue (Clubhouse)	replace			\$2,000												
5.08	Boiler Controllers (2005)	replace	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870	\$2,870
5.09	Boiler Controller (2010)	replace	\$3,000														
5.10	Boiler Pump and Motor	replace						\$2,000									
5.11	Heating Pumps and Motors (1999)	replace															
5.12	Heating Pumps and Motors (2005)	replace	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000										
5.13	Heating Pumps and Motors (2011)	replace				\$2,000											
5.14	Heating Pumps and Motors (2014)	replace						\$2,000	\$2,000	\$2,000	\$2,000						
5.15	Expansion Tanks	replace															
5.16	Cushion Tanks (2005)	replace	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000						
5.17	Cushion Tanks (2015)	replace										\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
5.18	Zone Valves and Thermostats	replace	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000							\$6,000	\$6,000
5.19	Heating Piping	replace	\$241,667	\$241,667													
5.20	Domestic Hot Water Heaters (1997)	replace	\$9,000	\$9,000													
5.21	Domestic Hot Water Heaters (2003)	replace	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000									\$9,000
5.22	Domestic Hot Water Heaters (2005)	replace		\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000						
5.23	Domestic Hot Water Heaters (2010)	replace								\$9,000							
5.24	Domestic Hot Water Heaters (2011)	replace								\$9,000	\$9,000	\$9,000	\$9,000				
5.25	Domestic Hot Water Heaters (2015)	replace												\$9,000	\$9,000	\$9,000	
5.26	Domestic Hot Water Heater (2016) CH	replace														\$3,000	
5.27	Domestic Hot Water Recirculation Pumps	replace	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
5.28	Dom Hot Water Recirculation Pump (2010) CH	replace								\$2,000							
5.29	Dom Hot Water Recirculation Pumps (2015)	replace												\$2,000	\$2,000	\$2,000	\$2,000
5.30	Domestic Water Piping	replace															
5.31	Clubhouse Water Piping	replace															
5.32	Exhaust Fans	replace															
5.33	Condenser (Clubhouse)	replace															
5.34	Sump Pump (2013)	replace	\$2,000										\$2,000				
5.35	Sump Pump (2016)	replace				\$2,000										\$2,000	
5.36	Appliances	replace												\$875	\$875	\$875	\$875
5.37	Electronic Equipment	replace								\$833	\$833	\$833					
5.38	Office Equipment	replace						\$1,000	\$1,000	\$1,000							
5.39	Miscellaneous	replace															
5.40	Underground Services	replace	\$60,000	\$60,000													
ELECTRICAL SYSTEMS																	
6.01	Lighting System	replace	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000	\$27,000							
6.02	Building Exterior Canopy Lighting	replace					\$3,000										
6.03	Electrical Distribution	replace															
6.04	Electrical Unit Heaters	replace															
6.05	Intercoms	replace			\$14,400	\$14,400	\$14,400	\$14,400	\$14,400								
6.06	Keyless Access System	replace					\$98,000										
FIRE SAFETY SYSTEM																	
7.01	Fire Alarm System	replace															
7.02	Fire Alarm Panel (2000)	replace															
7.03	Fire Alarm Panel (2006)	replace				\$10,000											
7.04	Fire Alarm Panel (2010)	replace								\$10,000							
7.05	Fire Alarm Panel (2012)	replace										\$10,000					
7.06	Fire Alarm Panel (2013)	replace											\$10,000				
TOTALS			\$1,006,981	\$1,010,981	\$709,214	\$468,214	\$407,070	\$473,270	\$371,603	\$391,036	\$550,036	\$273,503	\$208,870	\$84,745	\$28,745	\$39,745	\$299,745
FUTURE DOLLARS			\$1,355,263	\$1,387,860	\$993,071	\$668,725	\$593,023	\$703,254	\$563,226	\$604,534	\$867,352	\$439,912	\$342,673	\$141,813	\$49,064	\$69,196	\$532,300

**RESERVE FUND PROJECTIONS FOR**  
**Southampton Green (Plan No. 9813260)**

**SCENARIO ONE - APPROVED**  
**Initial Annual Contribution of \$445,000.**  
**Annual Increase of 7.2% thereafter**  
**Adjusted Contribution of \$475,000. in 2036**

**For Year Ending:** 2017  
**Date Of Study:** May 2017  
**Cash Flow Projection:** 25 years  
**Interest Rate :** 3.0%  
**Inflation Rate** 2.0%

**Rjc Job #** CAL106642.0003  
**Number of Units** 288

Year starting January 1	Opening Balance	*Predicted Annual Contribution (future dollars)	Special Assessment	Expenditure Adjusted for Inflation	Interest	Closing Balance	**Approximate Monthly Contribution Per Suite to the Reserve Fund
						**not based on Unit Factors	
2018	\$2,550,000	\$445,000		\$104,870	\$81,602	\$2,971,732	\$129
2019	\$2,971,732	\$477,040		\$41,687	\$95,682	\$3,502,768	\$138
2020	\$3,502,768	\$511,387		\$100,610	\$111,245	\$4,024,790	\$148
2021	\$4,024,790	\$548,207		\$585,472	\$120,185	\$4,107,709	\$159
2022	\$4,107,709	\$587,678		\$930,354	\$118,091	\$3,883,125	\$170
2023	\$3,883,125	\$629,990		\$1,198,152	\$107,971	\$3,422,935	\$182
2024	\$3,422,935	\$675,350		\$988,858	\$97,985	\$3,207,412	\$195
2025	\$3,207,412	\$723,975		\$813,933	\$94,873	\$3,212,326	\$209
2026	\$3,212,326	\$776,101		\$990,925	\$93,147	\$3,090,650	\$225
2027	\$3,090,650	\$831,980		\$1,292,546	\$85,811	\$2,715,896	\$241
2028	\$2,715,896	\$891,883		\$1,235,224	\$76,327	\$2,448,881	\$258
2029	\$2,448,881	\$956,099		\$1,250,811	\$69,046	\$2,223,215	\$277
2030	\$2,223,215	\$1,024,938		\$1,348,117	\$61,849	\$1,961,885	\$297
2031	\$1,961,885	\$1,098,733		\$1,961,083	\$45,921	\$1,145,457	\$318
2032	\$1,145,457	\$1,177,842		\$1,845,661	\$24,346	\$501,984	\$341
2033	\$501,984	\$1,262,647		\$1,355,263	\$13,670	\$423,037	\$365
2034	\$423,037	\$1,353,557		\$1,387,860	\$12,177	\$400,911	\$392
2035	\$400,911	\$1,451,013		\$993,071	\$18,896	\$877,750	\$420
2036	\$877,750	\$475,000		\$668,725	\$23,427	\$707,451	\$137
2037	\$707,451	\$509,200		\$593,023	\$19,966	\$643,594	\$147
2038	\$643,594	\$545,862		\$703,254	\$16,947	\$503,150	\$158
2039	\$503,150	\$585,164		\$563,226	\$15,424	\$540,512	\$169
2040	\$540,512	\$627,296		\$604,534	\$16,557	\$579,831	\$182
2041	\$579,831	\$672,462		\$867,352	\$14,472	\$399,412	\$195
2042	\$399,412	\$720,879		\$439,912	\$16,197	\$696,576	\$209
<b>TOTALS</b>		\$19,559,283	\$0	(\$22,864,520)	\$1,451,814		

**25 Year Projection**

