

Connemara Woods HOA-FY20

Sterling, VA

Level I Full Reserve Study

February 29, 2020

C/o Mr. Chris Phillips  
CWAH  
P.O. Box 1544  
Sterling, VA 20167

Dear Mr. Phillips:

Enclosed please find the Level I Full Reserve Study for Connemara Woods HOA.

This is the "Final Report." If there are questions or concerns, please let us know.

We thank the Board of Directors for selecting **PM+** for this study and hope you call upon us for your next study.

Sincerely,



Ronald P. "Ron" Kirby, Jr., RS  
Executive in Charge of Reserve Studies



Mario B. "Ben" Ginnetti, PRA, RS, P.E.  
President

Enclosure:  
Study - PDF File

Connemara Woods HOA-FY20

Sterling, VA

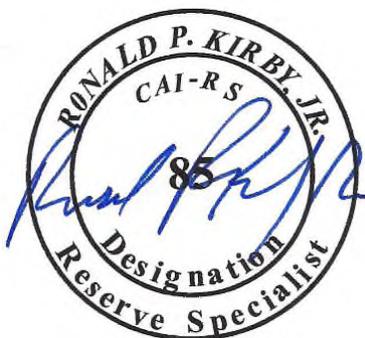
Level I Full Reserve Study

February 29, 2020



Prepared for:

Board of Directors



Ronald P. "Ron" Kirby, RS



Mario B. "Ben" Ginnett, PRA, RS, P.E.

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**EXECUTIVE SUMMARY**

**KEY TO UNDERSTANDING STUDY RESULTS** – The purpose of a reserve study is to establish a financial plan for keeping the property’s common and limited common elements in good repair. The plan is developed by identifying the component, assessing its condition, and estimating both the time when work will be needed and cost of work. In a **PM+** study these entries can be found beginning on page A1, columns (1), (4) and (5). Those entries combined with reserve savings, current reserve contribution, interest, and inflation rates and how much of a contingency should be preserved to fund unforeseen events are the factors that determine the reserve contribution.

**RELEVANT DATA**

1st Study Year FY20	\$0 AOH Start FY20
FY Begins 1-Jan-20	0 Assoc. Contribution FY20
Inspection Date(s) 2/24-27/2020	1.54% Inflation
# Units 55	2.27% Interest

**AOH** (cash/investments start of fiscal year) and **Current Year Contribution** were provided to **PM+** and were best estimates available when provided, they are not audited amounts.

**INTEREST AND INFLATION**<sup>1</sup> best project future needs of the property. Inflation is based on the last 10-year Consumer Price Index (CPI) average; interest on savings is based on the 10-year average of the Constant Maturity Yield for the 10-Year U.S. Treasury security quote. Recommended owner contribution assumes interest will be applied to the reserves and not used to offset operating account expenses or for other purposes. If interest is not applied to the reserves, the annual contribution will need to be increased by the interest amount.

**STUDY SUMMARY AND RECOMMENDED CONTRIBUTION**

**Information Required of Virginia Condo and POA Act**

Reserve Contribution Recommended for FY20	\$15,540
Accumualted Cash Start of FY (AOH)	0
30-Year Min Balance	23,560
50-Year Min Balance	23,560
Remaining Useful Life Years (All Components) <sup>2</sup>	
Average Useful Life Years (All Components) <sup>2</sup>	
<sup>2</sup> See A pages for lives of all components	

**Additional Study Values**

Avg Owner Contribution FY20	283
Avg Owner Contribution/Month	23.55
30-Year Income	817,650
Income From Interest	171,780
Income From Assessments	645,870
30-Year Max Balance	644,660
50-Year Max Balance	1,542,400

The above study summary is a requirement of the Virginial Code enacted on October 1, 2019 that states the information in this group must be included in the association’s yearly budget submittal. The additional study values provide the reader with details that support the annual contribution to the reserves.

1. Although factors used may not prove to be precise, they should be reasonable predictors of cost increases and contributions needed to support the reserve requirement over the life of the study.

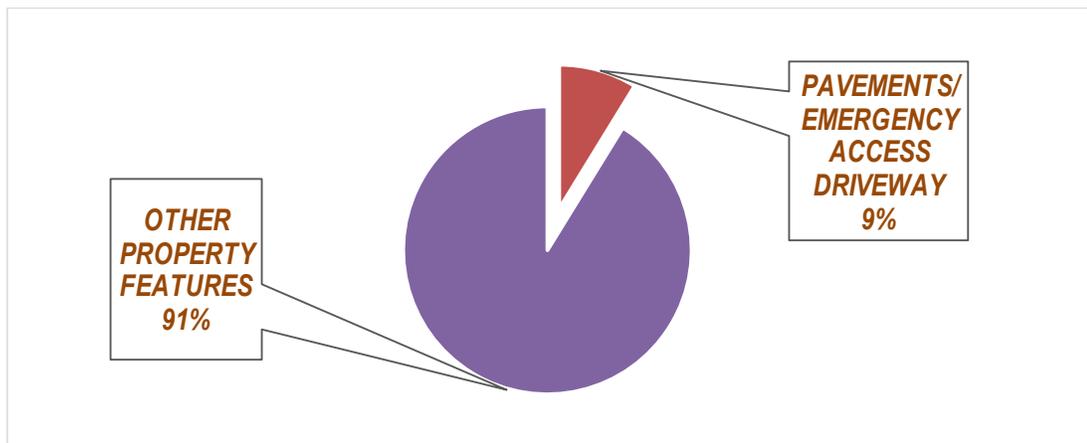
**ANALYSIS:**

- Our analysis indicates the association will need to contribute \$15,540 in FY20 to meet the reserve needs of the property using the cash flow method. Starting with FY20 and through FY23 the association will need to increase the year after year reserve contribution by 5% to provide for near term work. After FY23 our projection shows the association should be able to reduce the annual contribution to the rate of inflation in effect at that that time. That amount, based on current study assumptions, should be sufficient to fund the mid and out-year reserve needs of the property.
- For subsequent yearly contributions see page A5, column (14), and for year end balances those contributions should provide see column (15).
- If the component method is used to fund the reserves see columns (17) and (18), same page as above for yearly contributions and year end balances.
- Factors considered in determining the annual contribution are: 1) funds should always be available to pay for needed work, 2) a minimum balance must be preserved for contingencies, and 3) when studies are updated there should not be a substantial increase in the contribution. To avoid substantial increases **PM+** studies consider the first thirty-years and an additional twenty-years, making the "look at" period a total of 50-years. This projection assures the recommended contribution is based on a sound long range analysis of the property's reserve needs.
- Note - dollars in future studies will vary with accrued savings, useful lives, inflation, interest, and cost for work.

**RECOMMENDATION:**

Fund the reserves to the recommended amount using the cash flow method.

**WHERE CONTRIBUTIONS TO THE RESERVES GO OVER 30-YEARS:**



## **STUDY INFORMATION**

**THIS STUDY** was performed with an on-site visit and is the initial engagement for the property by **PM+**. **PM+** has neither collaborated with nor provided consulting advice about property issues.

**STUDY WAS DONE** by Mario B. “Ben” Ginnetti, **PRA, RS, P.E.** and Ronald P. Kirby, Jr., **RS**.

**RESERVE STUDY** criteria are defined by the Community Association Institute (CAI) and the Association of Professional Reserve Analysts (APRA). In complying with the criteria this study compares the “Associations” current funding plan to the two recommended methods for preparing reserve studies, “Cash Flow (AKA Pooling)” and “Component.” This is a reserve study only - no other use is intended.

**COMPILED** in accordance with generally accepted standards and represents our professional opinion on the components, timing and costs needed for repair and replacement. Study information was obtained from field measurements, visual observations, and management (information provided by management is reliable). Also, taken into consideration are construction features, current conditions, and component age. Testing was not performed, nor was demolition done or panels removed to determine conditions that are not obvious. Based on our observations and the information gained during the visit this study contains, to the best of our ability, all material issues required to determine the funding needed to meet the property’s reserve requirement.

**FOR PROPERTIES LOCATED IN THE STATE OF VIRGINIA**, Virginia Condominium and Property Owner’s Association Act dated October 1, 2019 requires associations to conduct reserve studies at least every five years, review results at least annually and adjust as necessary unless the condominium instruments/declaration imposes more stringent requirements. The act requires See Sections 55.1-1965 or 55.1-1826 of the Statutes for the complete text.

## **AGE, UNITS, STYLE, AND AMENITIES**

Constructed in 1986-1987.  
55 single family homes.

**CASH FLOW AND COMPONENT STUDIES (component method may not be included in this study)** – Note: Most professional reserve providers, accountants and managers agree cash flow is the preferred method for funding reserves.

**CASH FLOW METHOD** - This method develops the funding plan by having the annual contributions offset the variable annual expenses. All expenses are averaged over the life of the study to calculate the annual contribution needed to support the reserve requirement. Yearly contribution increases are mostly attributed to inflation. Cash flow plans are usually good for 3-5 years before needing updates.

**COMPONENT METHOD** - This method develops the funding plan by dividing the remaining useful life into the balance needed to fund the component for only the next cycle of work. Yearly contributions can vary significantly from year to year depending on where the components are in their life cycle. Contributions needed to pay expenses will equal the cash flow method over the life of the study. If this method is chosen studies should be updated annually.

## **FUNDING GOAL**

This study complies with the “Threshold Funding Plan” established by the CAI) for reserve studies. Funding goal objective is to keep the reserve balance above a specified dollar or Percent Funded amount.

## **COMPONENT CLASSIFICATION**

### **PREDICTABLE LIFE CYCLE**

Components have a predictable life cycle (average useful life). Total replacement needed at end of life.

### **ANNUAL ALLOWANCES**

We reserve an average annual amount for these components. They are typically “life of the property” or long-lasting components that do not have a predictable life cycle. We assume the association will keep these components in satisfactory condition with timely spot repairs.

**FOLLOWING CONSIDERATIONS** should be taken into account to properly manage the reserves: 1) properly funded reserves avoids “special assessments”, 2) each owner should pay their fair share for the time they use the component, 3) when reserve funds are available the Association is more inclined not to defer work; deferral results in additional deterioration and “catch-up” costs to restore the component to a good condition, 4) government mortgage guarantees agencies, i.e. FHA, require a current reserve study to be available before backing a loan, and 5) some state laws require them. In addition to these considerations, a new factor has recently become apparent. Years ago, owners were poorly informed on the importance of the reserves and paid very little attention to whether a property had an adequate plan for funding the reserves. With the inclusion of reserve tables in resale packages and other publicity, many potential buyers are now verifying the reserve status before they buy.

**ALTHOUGH** we use generally accepted techniques and best information available, it is possible actual costs and useful lives can vary significantly from our estimates. We recognize that possibility and attempt with our methodology to arrive at the overall funding recommendation that will avoid or minimize the amount of funding if a special assessment is needed to do reserve work.

**FOR THE RESERVES** to be an effective budget management tool it will need periodic updates. Because reserves on hand, current costs, quality of maintenance, acts of God, vandalism, and useful life can vary from year to year, a periodic review will assure it remains an effective management tool. We recommend studies be updated every 3 years.

**UNLESS OTHERWISE NOTED** this study does not take into consideration any work the association may need to correct hazardous or defective conditions, such as issues with asbestos, radon, lead, mold, FRT, etc., nor will it fund major projects to repair/replace facades, building tension cables, utilities, and other essential systems. Projects of this nature require the services of engineers or other consultants to determine scope, timing, and projects costs. If requested, once costs and project timing are known, we will provide a revised study at no additional cost.

**FOR ANY RESERVE PROJECTS** in progress on the date(s) of our visit our observation of the work should not be considered a project audit or quality control inspection. We leave that to others to determine.

**IF WE DESCRIBE PREVENTIVE MAINTENANCE** recommendations in this study they are intended to be general in nature and the most common tasks needed to extend useful life. They are not all inclusive; we do not imply that is all that is necessary for good maintenance. Manufacturers’ brochures, service specialty companies, and other qualified sources should be consulted to establish the full array of actions needed for proper preventive maintenance.

**FUNDING FROM RESERVE VERSUS OPERATING ACCOUNT** - There could be components in this study the association is funding from the operating account. When there are, we recommend they be funded from the reserves. When components are worked on it usually extends their useful life - a proper reserve expense. Reserve funds are intended to keep property components in good repair and to replace those that need replacing; operating funds are intended for maintenance and reoccurring operating expenses.

## **MAINTENANCE/REPAIR/REPLACEMENT TIPS & RESERVE CONSIDERATIONS**

**THERE ARE THREE LEVELS** of care needed to maximize the useful life of equipment and property components: 1) Maintenance, 2) Repair and 3) Replacement.

**MAINTENANCE** is taking care of a component by doing such tasks as sealing pavement cracks to prevent water from undermining the base, painting to prevent metal corrosion or wood rot, lubricating moving parts on mechanical equipment, fan belt adjustments, etc. An example of maintenance - an asphalt parking lot of 1000 square yards develops a 10-foot-long crack in the surface. The crack can be sealed for about a dollar a linear foot. By doing so, water will not seep through the asphalt causing damage to the base course. That simple maintenance action extended the useful life of the pavement at minimum cost. Assume the crack was not sealed and it grew to a 12' by 12' base damaged area. Cost of repairs would be approximately 60 times as much as fixing the crack. If the damaged area was not repaired and eventually the entire lot had to be replaced it would cost considerably more. Therefore, the prudent thing to do is good maintenance. It's the least costly of the three levels of work. It involves the least expenditure of funds and is the best way to maximize useful life.

**PRIOR TO TOTALLY REPLACING** a component, e.g., a roof, a fence, an air conditioner, etc., all measures should be taken to extend the useful life of the component with repairs. If the roof is leaking do not automatically think the entire roof needs to be replaced. Most leaks occur around penetrations and flashed areas and they can be repaired for less than replacing the entire roof. Fence posts almost always rot out at ground level before the rest of the fence. Posts can be replaced without purchasing a complete new fence. The same applies to most mechanical/electrical equipment. Tube leaks frequently occur in boilers; compressor failures occur in air conditioners and circuit breakers wear out in electric panels. These kinds of failures are repairable without replacing the entire component. The reserve table should be used as an aid in establishing budgets - not as a work plan. When used as a budget management tool its effectiveness will be recognized when funds are readily available to do work - when it must be done. Do not use the remaining useful life data as a work plan. It should be treated as a "window of probable expectancy", based on statistical information, historical trends, conditions at time of survey and experience of when repair or replacement is most likely to be needed. Actual work should not be done until needed. For example, if paving is estimated to need replacement in five years but it's not a problem at that time, put it off until it is a problem. Conversely, if repairs are necessary sooner, do them sooner.

**WHEN CONTRACTING** for services, seek competitive bids and purchase only what's necessary to restore the component to its "like original" condition. Include state-of-the-art improvements but avoid over buying or substantially enhancing a component beyond its original condition. Such improvements are not included in the cost estimates.

**CATASTROPHIC FAILURES** to such components as footers, foundations, floors, exterior walls and total replacement of utility systems, etc., are not included in the table. They are not included because they are not predictable and it is rare that these components must be replaced in total. We do recommend a reasonable annual amount be set aside for some repairs and reflect that in the reserve table.

**FUNDING FOR RESERVES SHOULD BE FAIR TO ALL OWNERS**; past, present, and future. The worst-case scenario for a property is to have no money set aside to pay for repairs/replacements forcing the current owners to pay the total cost. Additionally, having insufficient reserves also presents some injustices as illustrated by the following example:

Mr. and Mrs. "X" owned a unit at the property for the first ten years of its existence when reserve funding was suppressed and insufficient to take care of future problems. Mr. and Mrs. "X" sell their unit and leave. Five years after they leave the pavement and sidewalks need to be repaired. Mr. & Mrs. "Y" now own the unit and receive notice they are to be "specially assessed" to pay for the repair costs.

For demonstration purposes let's say the pavement and sidewalk repairs costs \$150,000 and the association has \$50,000 in the reserve account. Let's also assume there are 100 units at this property.

Over the last fifteen years, past and present owners set aside \$50,000 to take care of the \$150,000 expenditure. Expressed in \$/year that equates to \$3,333/yr. or \$33.33 per owner per year.

Mr. & Mrs. "X" had the benefit of good paving and sidewalks for 10 years at a total cost to them of \$333.30. Unfortunately for Mr. & Mrs. "Y", they only used the components for five years, but it will cost them \$1166.50 for their share of the repairs.

Calculations for the above are as follows:

5 years they lived there X \$33.33/yr. = \$166.50

The difference between amount in reserves and repair costs divided by number of unit owners:

$(\$150,000 - 50,000) / 100 = \underline{\$1000.00}$

Total cost to Mr. & Mrs. "Y" = \$1166.50

Or, said another way:

Mr. and Mrs. "X" used the components for 66% of their useful life but only paid 22% of the repair cost.

Mr. and Mrs. "Y" used the components for 34% of their useful life but had to pay 78% of the cost.

For funding to be fair all owners should contribute their share of the costs for the period they use the component.

**READING and UNDERSTANDING TABLES/CHARTS** (Some information may not appear in this study).

**RELEVANT DATA**

Study fiscal year, inspection date(s), units, association’s financial data, and interest/inflation rates.

**SUMMARY OF THE ASSOCIATION’S RESERVE FINANCIAL PLAN**

Financial summary of study results.

**TABLE OF REPAIR & REPLACEMENT RESERVES**

The Repair and Replacement Table shows the common or limited common element, average and remaining useful life, and estimated cost for work. This information, for the most part, is self-explanatory; however, when we believe more information is needed, we provide comments or use photographs.

Column

- (1) The property components the association should include in the reserves. Where a 15%, 30%, etc., is shown it means total replacement of the item is not anticipated. If we have omitted or added components that are not common or limited common area responsibility, please inform us so we can provide a revised table. It also applies if the association accomplishes the work from their annual operating expense and a reserve set-aside is not needed. If components are included that are operating expenses, we leave it to others to determine the correct tax consequence of the component.

- (2) Approximate quantity and unit of measure. The following abbreviations are used; however, they may not all appear in this study:

AC – Acres	LF - Linear Feet	TN - Tons
AOH - Amount-On-Hand	LS - Lump Sum	UN - Units
AnAvg - Annual Average	HP – Horsepower	> - Greater Than
BLD - Building	RC - Replacement Cost	< - Less Than
EA - Each	SF - Square Feet	
CY - Cubic Yards	SY - Square Yards	

- (3) The components’ average useful life (Avg). Leading publications on useful life data, our own experiences and historical trends are used to determine average useful life.
- (4) Our best estimate of the remaining useful life (RUL). Some components in the table may not fail precisely as shown. We use the remaining useful life in conjunction with the estimated cost to calculate the annual contribution needed to fund the component. Actual remaining useful life can be significantly different.
- (5) Estimated costs are in current dollars; actual cost can be significantly different. Estimates are based on similar work in the greater Washington area, association experience, industry publications, such as R.S. Means and HomeTech, contractors and other reliable sources. It assumes the association will competitively seek bids and obtain a fair price in today's market. Some work, such as balconies, roofing, garages, façade, boiler, and chiller replacements, etc. may need the services of an engineer or architect to determine scope and oversee repairs. Those estimates take precedence over those shown in the table. Some costs can be more predictable than others, i.e., when roofs and pavements are replaced the entire component will most likely be replaced so a total replacement costs can be estimated. Other components, i.e., closed loop piping, plumbing, electrical and fire protection systems may not need total replacement and will continue to perform with sub-system repairs. For these components, we reserve a reasonable amount for this work.
- (6) Distribution of the funds the association had (is projected to have) at the start of their fiscal year or the amount we were requested to use. The program distributes a prorated amount to each component.
- (7) The amount needed to fund the balance of the requirement.

- (8) The contribution needed to fund the 1<sup>st</sup> year applying the cash flow method. Contributions from year to year are mainly adjustments for inflation.
- (9) The contribution needed to fund the 1<sup>st</sup> year applying the component method. Contributions from year to year can vary significantly.

### **30-Year Comparison of Financial Plans**

#### Column

- (10) - Fiscal Year.
- (11) - Projected annual expenses.
- (12) - Cumulative expenses over 30-years.
- (13) and (16) - Interest earned per funding plan based on previous year-end balance.
- (14) and (17) - Contribution per funding plan, inflation applied.
- (15) and (18) - Projected year-end balance per funding plan.

### **GRAPHS**

Graphs depict the projected contributions and year end balances for each plan. The contribution objective should be to have a consistent contribution, year after year, that can be maintained with inflation adjustments. Avoid fluctuating contributions as they can impose financial hardships on owners. The plot objective for the reserve balance is to have the year end balances always above the “X” axis. If it falls below, it indicates a special assessment or loan will be needed to support the reserves.

### **SUMMARY**

- 30-Year Income - projected from interest and owners.
- 30 & 50-Year Minimum/Maximum Balances - includes contingency for unforeseen events.

### **PROPERTY COMPARISON**

The “Property Comparison” chart compares the property’s current funding to the last 100 properties we have studied. The comparison shows the maximums, minimums, property averages and medians compared to your property. Property features differ from one property to another so consider these as averages only and not a true comparison on your property to another similar property. Three comparisons are made:

- % Funded - Ratio of the current to the ideal Reserve Balance for each component in the Reserve Table. The ratio is a product of the “used-up” life, useful life, and component cost.
- Reserve Depletion Factor - Number of years amount-on-hand will fund (It’s the same as the “go broke” date if no more money is added to the reserves).
- AOH-Dedicated reserve funds at start of study fiscal year.
- Cost Per Owner – Average contribution per owner needed to meet the reserve requirement. Dollar amounts will vary from property to property based on construction features, common/limited common elements, past contributions to the reserves and other factors that may not result in a true comparison.



Connemara Woods is a 55-unit single family housing community located in Sterling, VA. Photograph is typical of the housing style. All exterior components of the home are each owner's responsibility.



Streets, sidewalks, curbs and gutters are the responsibility of VDOT.



The association is responsible for the fire lane. See our recommendations in the comments section for proper care of asphalt pavements.



Gates on backside of fire lane will repair and replacement at end of useful life.



Stone faced feature at entrance is a long lasting component that can be kept in good repair with spot repairs.



Association is only responsible for the retaining walls on each side of the staircase. All other retaining walls are owner responsibility. Stairs are a long lasting items if maintained and repaired as needed.



A reasonable amount to replace dead or diseased trees and shrubbery. Does not include normal landscaping upkeep which is funded from the operating account nor large scale improvements.



Signs, sign posts, low height wood retaining walls, storm drainage issues, dog station, and other miscellaneous items are also included in the reserves.

## APPENDIX A

**TABLE OF REPAIR/REPLACEMENT RESERVES AND YEARS 1-10 EXPENSES**

COMPONENT (1)	APPROX'MT QUANTITY (2)	USEFUL LIFE AVG REM (YRS) (3) (4)	ESTIMATED COST IN CURRENT \$ (5)	DISTR'BTN OF AOH AS OF 1-Jan-20 (6)	BALANCE NEEDED TO FUND RESERVE (7)	FY20 CONTRIBUTION CASH FLOW COMPONENT METHODS (8)	(9)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>PAVEMENTS/EMERGENCY ACCESS DRIVEWAY</b>																	
<b>PAVEMENTS</b>																	
PREVENTIVE MAINTENANCE	383 SY	4 1	880	0	880	1,320	880	880	0	0	0	940	0	0	0	990	0
PAVEMENT OVERLAY	383 SY	20 15	6,310	0	6,310	630	420	0	0	0	0	0	0	0	0	0	0
BASE/SUB-BASE/REPAIRS	19 SY	20 15	670	0	670	70	40	0	0	0	0	0	0	0	0	0	0
<b>TOTAL PAVEMENTS/CONCRETE</b>			<b>7,860</b>	<b>0</b>	<b>7,860</b>	<b>2,020</b>	<b>1,340</b>										
<b>OTHER PROPERTY FEATURES</b>																	
<b>ENTRANCE(S)</b>																	
ENTRANCE FEATURE WITH LIGHT	LS	5 2	1,100	0	1,100	830	550	0	1,120	0	0	0	0	1,210	0	0	0
<b>TREES/SHRUBBERY</b>																	
TREES/SHRUBBERY-DISEASED/DEAD REPLACEMENT	LS	3 1	1,500	0	1,500	2,250	1,500	1,500	0	0	1,570	0	0	1,640	0	0	1,720
<b>FENCING</b>																	
6' METAL FENCE WITH EMERGENCY ACCESS GATE	19 LF	30 1	2,000	0	2,000	3,000	2,000	2,000	0	0	0	0	0	0	0	0	0
<b>STAIR CASE ONLY</b>																	
WOOD RETAINING WALLS/WITH RAILING	120 SF	30 15	36,000	0	36,000	3,600	2,400	0	0	0	0	0	0	0	0	0	0
WOOD STAIRWAY AS NEEDED REPAIRS	106 SF	4 3	3,180	0	3,180	1,590	1,060	0	0	3,280	0	0	0	3,490	0	0	0
<b>OTHER SITE FEATURES</b>																	
SITE ITEMS	LS	1 1	1,500	0	1,500	2,250	1,500	1,500	1,520	1,550	1,570	1,590	1,620	1,640	1,670	1,700	1,720
<b>TOTAL OTHER PROPERTY FEATURES</b>			<b>45,280</b>	<b>0</b>	<b>45,280</b>	<b>13,520</b>	<b>9,010</b>										
<b>TOTAL RESERVES</b>			<b>\$53,140</b>	<b>\$0</b>	<b>\$53,140</b>	<b>\$15,540</b>	<b>\$10,350</b>	<b>\$5,880</b>	<b>\$2,640</b>	<b>\$4,830</b>	<b>\$3,140</b>	<b>\$2,530</b>	<b>\$1,620</b>	<b>\$7,980</b>	<b>\$1,670</b>	<b>\$2,690</b>	<b>\$3,440</b>

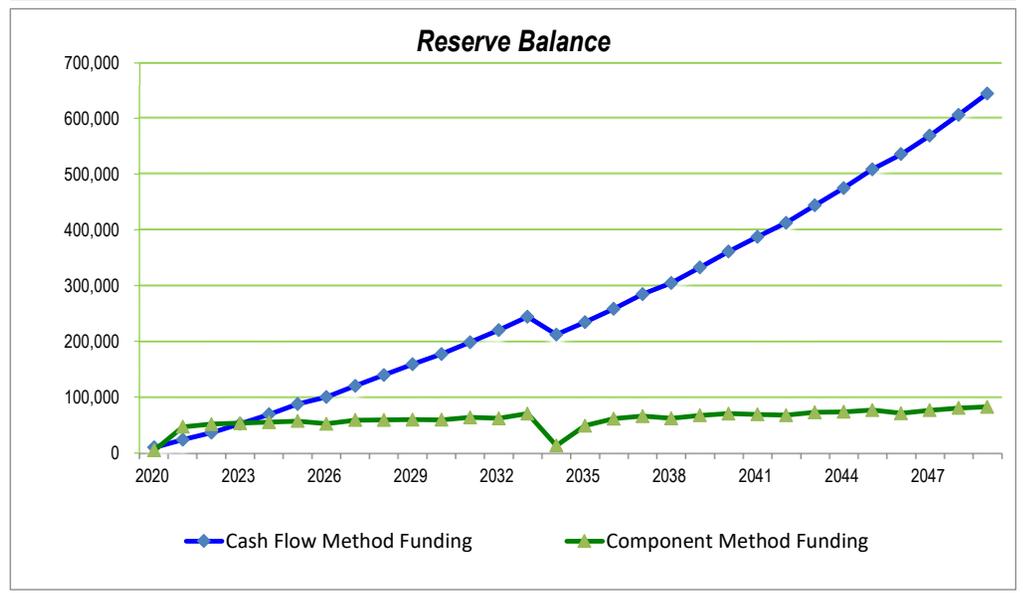
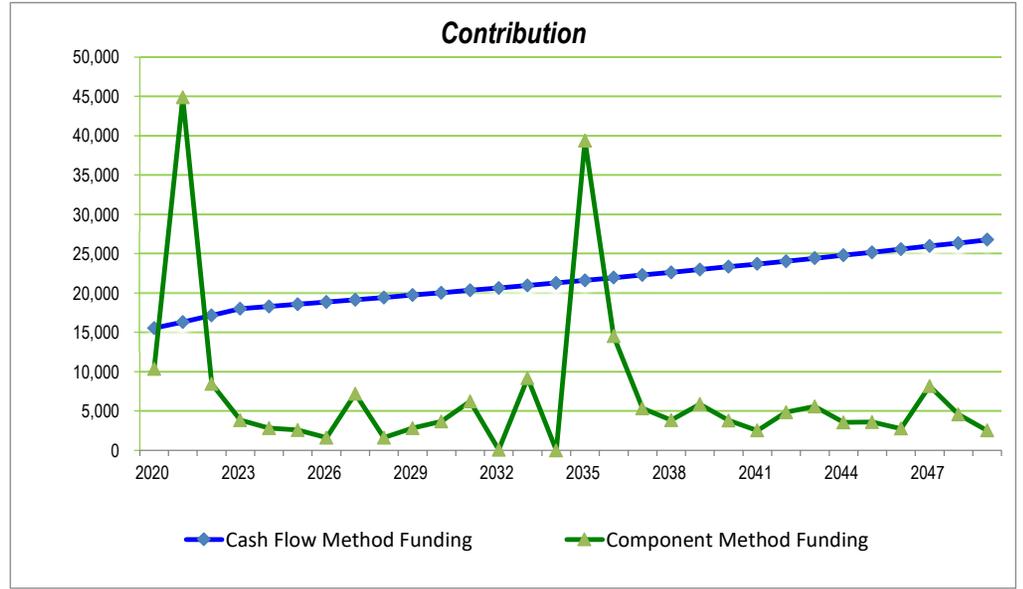
Notes:  
 All dollars rounded to nearest \$10. Totals may not add due to rounding.  
 One year remaining useful life indicates the useful life of the component is used up.

YEARS 11 - 30 EXPENSES

COMPONENT	USEFUL LIFE ESTIMATED																						
	AVG REM (YRS)	COST IN CURRENT \$		2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
(1)	(3)	(4)	(5)																				
<b>PAVEMENTS/EMERGENCY ACCESS DRIVEWAY</b>																							
<b>PAVEMENTS</b>																							
PREVENTIVE MAINTENANCE	4	1	880	0	0	0	0	0	0	0	0	1,160	0	0	0	1,230	0	0	0	1,310	0	0	0
PAVEMENT OVERLAY	20	15	6,310	0	0	0	0	7,820	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BASE/SUB-BASE/REPAIRS	20	15	670	0	0	0	0	830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL PAVEMENTS/CONCRETE</b>			7,860																				
<b>OTHER PROPERTY FEATURES</b>																							
<b>ENTRANCE(S)</b>																							
ENTRANCE FEATURE WITH LIGHT	5	2	1,100	0	1,300	0	0	0	0	1,400	0	0	0	0	1,520	0	0	0	0	1,640	0	0	0
<b>TREES/SHRUBBERY</b>																							
TREES/SHRUBBERY-DISEASED/DEAD REPLACEMENT	3	1	1,500	0	0	1,800	0	0	1,890	0	0	1,970	0	0	2,070	0	0	2,160	0	0	2,270	0	0
<b>FENCING</b>																							
6' METAL FENCE WITH EMERGENCY ACCESS GATE	30	1	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>STAIR CASE ONLY</b>																							
WOOD RETAINING WALLS/WITH RAILING	30	15	36,000	0	0	0	0	44,590	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WOOD STAIRWAY AS NEEDED REPAIRS	4	3	3,180	3,710	0	0	0	3,940	0	0	0	4,190	0	0	0	4,450	0	0	0	4,730	0	0	0
<b>OTHER SITE FEATURES</b>																							
SITE ITEMS	1	1	1,500	1,750	1,770	1,800	1,830	1,860	1,890	1,920	1,950	1,970	2,010	2,040	2,070	2,100	2,130	2,160	2,200	2,230	2,270	2,300	2,340
<b>TOTAL OTHER PROPERTY FEATURES</b>			45,280																				
<b>TOTAL RESERVES</b>			\$53,140	\$5,460	\$3,070	\$3,600	\$1,830	\$59,040	\$3,780	\$3,320	\$1,950	\$9,290	\$2,010	\$2,040	\$5,660	\$7,780	\$2,130	\$4,320	\$2,200	\$9,910	\$4,540	\$2,300	\$2,340

30-YEAR FINANCIAL PLAN(S)

FY (10)	Expenses		Cash Flow Method Funding			Component Method Funding		
	Annual * (11)	Cumulative (12)	Interest (13)	Contr'btn (14)	Balance (15)	Interest (16)	Contr'btn (17)	Balance (18)
AOH					\$0			\$0
2020	5,880	5,880	0	15,540	9,660	0	10,350	4,470
2021	2,640	8,520	220	16,320	23,560	100	44,880	46,810
2022	4,830	13,350	530	17,140	36,400	1,060	8,460	51,500
2023	3,140	16,490	830	18,000	52,090	1,170	3,840	53,370
2024	2,530	19,020	1,180	18,280	69,020	1,210	2,820	54,870
2025	1,620	20,640	1,570	18,560	87,530	1,250	2,580	57,080
2026	7,980	28,620	1,990	18,850	100,390	1,300	1,620	52,020
2027	1,670	30,290	2,280	19,140	120,140	1,180	7,200	58,730
2028	2,690	32,980	2,730	19,430	139,610	1,330	1,620	58,990
2029	3,440	36,420	3,170	19,730	159,070	1,340	2,820	59,710
2030	5,460	41,880	3,610	20,030	177,250	1,360	3,660	59,270
2031	3,070	44,950	4,020	20,340	198,540	1,350	6,240	63,790
2032	3,600	48,550	4,510	20,650	220,100	1,450	60	61,700
2033	1,830	50,380	5,000	20,970	244,240	1,400	9,180	70,450
2034	59,040	109,420	5,540	21,290	212,030	1,600	0	13,010
2035	3,780	113,200	4,810	21,620	234,680	300	39,360	48,890
2036	3,320	116,520	5,330	21,950	258,640	1,110	14,520	61,200
2037	1,950	118,470	5,870	22,290	284,850	1,390	5,340	65,980
2038	9,290	127,760	6,470	22,630	304,660	1,500	3,840	62,030
2039	2,010	129,770	6,920	22,980	332,550	1,410	5,880	67,310
2040	2,040	131,810	7,550	23,330	361,390	1,530	3,780	70,580
2041	5,660	137,470	8,200	23,690	387,620	1,600	2,520	69,040
2042	7,780	145,250	8,800	24,050	412,690	1,570	4,860	67,690
2043	2,130	147,380	9,370	24,420	444,350	1,540	5,580	72,680
2044	4,320	151,700	10,090	24,800	474,920	1,650	3,540	73,550
2045	2,200	153,900	10,780	25,180	508,680	1,670	3,600	76,620
2046	9,910	163,810	11,550	25,570	535,890	1,740	2,760	71,210
2047	4,540	168,350	12,160	25,960	569,470	1,620	8,160	76,450
2048	2,300	170,650	12,930	26,360	606,460	1,740	4,560	80,450
2049	2,340	172,990	13,770	26,770	644,660	1,830	2,520	82,460
<b>SUMMARY</b>								
30-Year Income =			171,780	645,870		39,300	216,150	
30-Year Minimum Balance =					23,560			13,010
30-Year Maximum Balance =					644,660			82,460
50-Year Minimum Balance =					23,560			13,010
50 Year Maximum Balance =					1,542,400			114,980

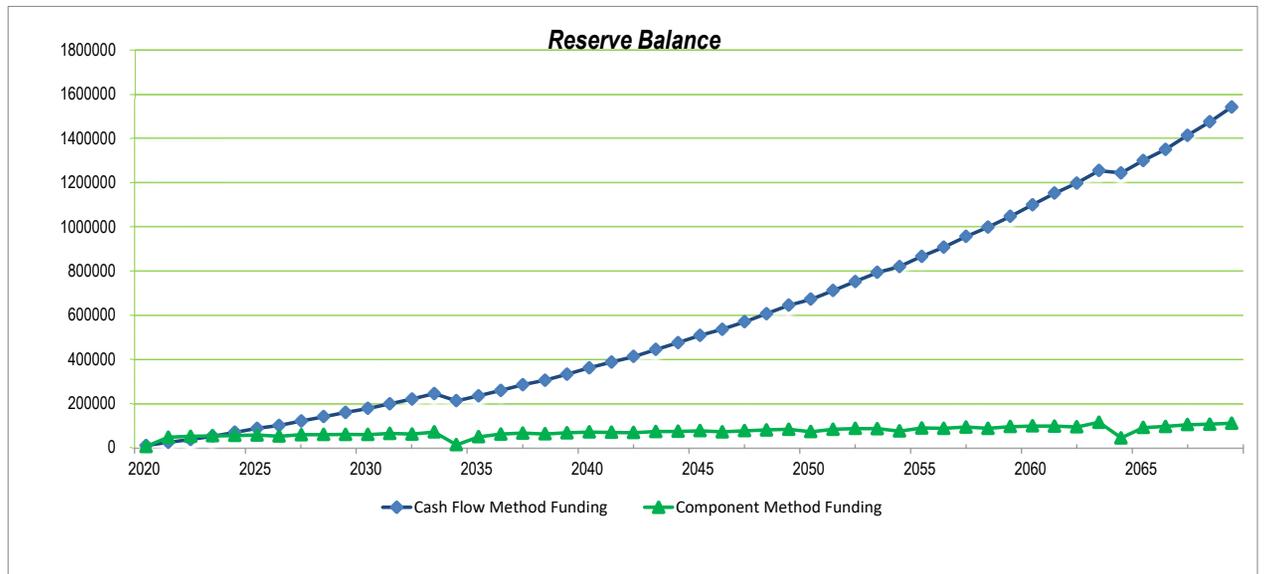
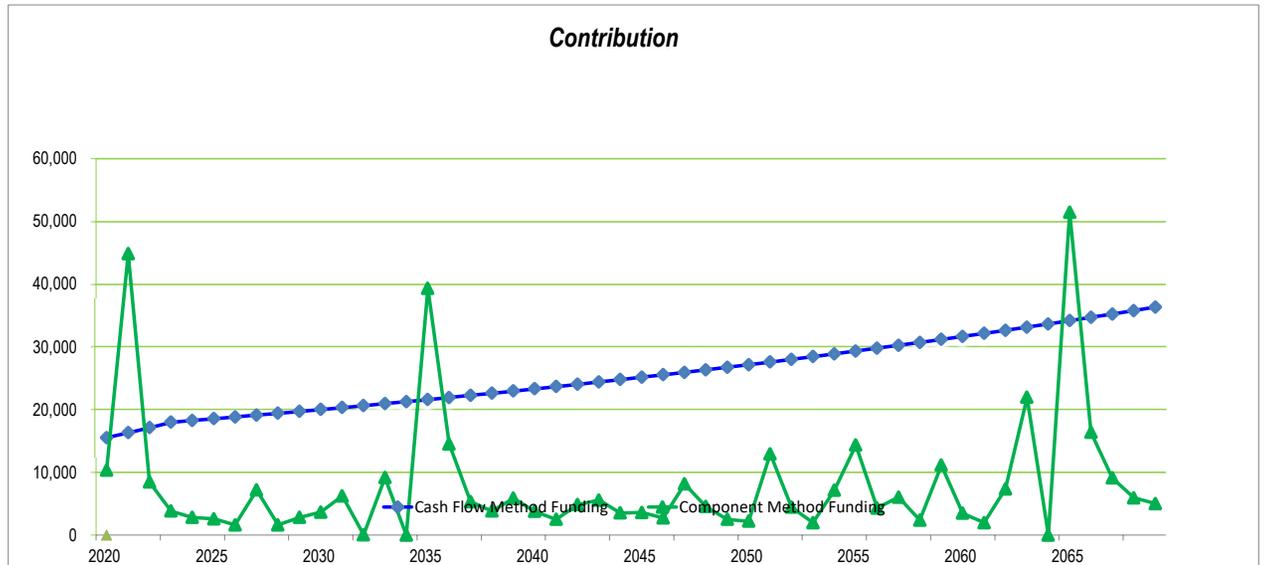


Notes:

- \* An annual average cost. Expenditures can change from year-to-year depending on when actual work is done.
- Contribution and projections are based on the study fiscal year and will change if estimated cost, useful life, amount-on-hand, contribution and contingency to be preserved change.
- Data should be considered a more accurate projection for years 1 - 5 than the out-years.
- Minimum balance does not include the first year.
- If the above charts includes component method calculations note how contributions in columns 17 can vary significantly from one year to the next.
- A highlighted cell in column (14) indicates future contributions from that year on will vary from past contributions, either due to inflation or work accomplished.

50-YEAR FINANCIAL PLANS

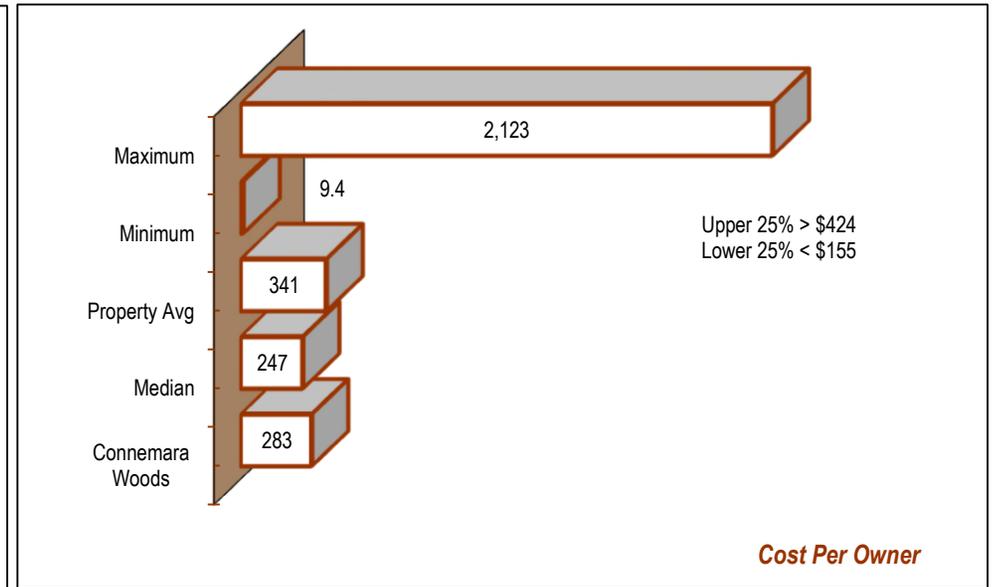
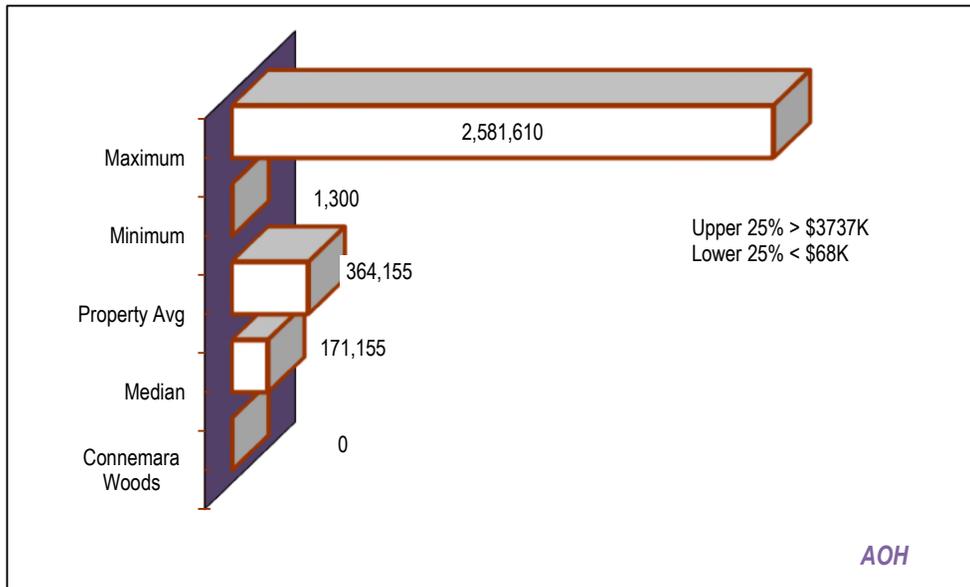
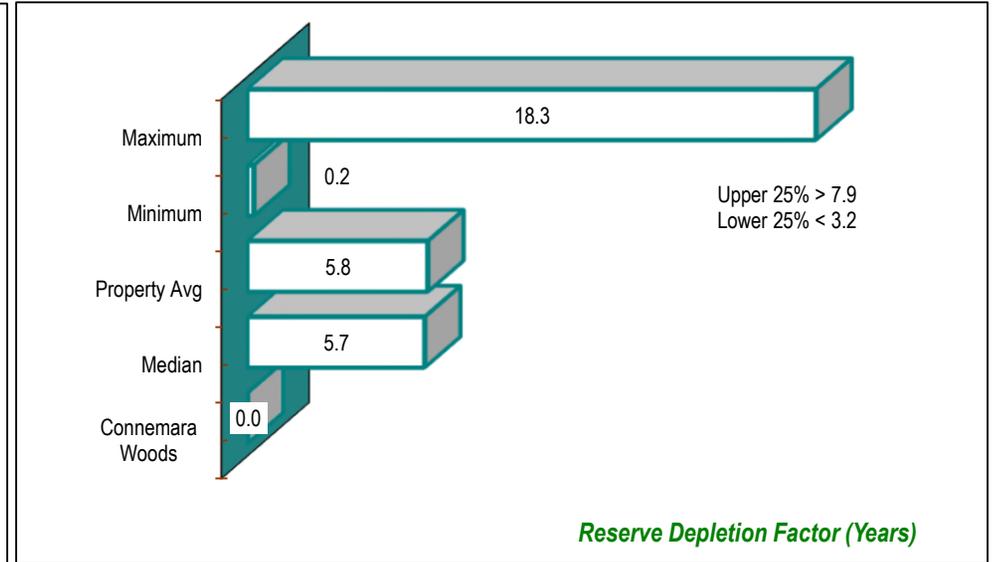
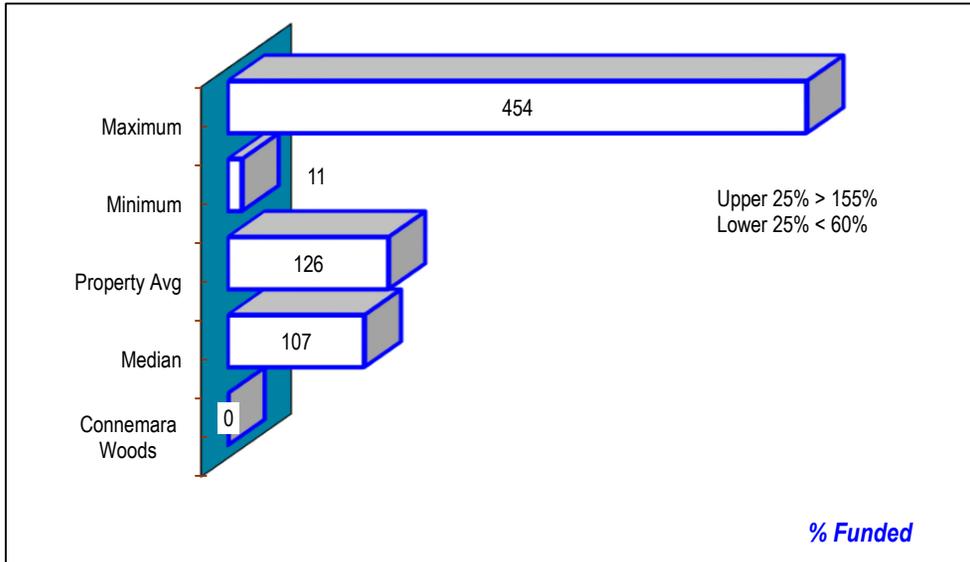
FY (10)	Expenses		Cash Flow Method Funding			Component Method Funding		
	Annual* (11)	Cumulative (12)	Interest (13)	Contr'tbn (14)	Balance (15)	Interest (16)	Contr'tbn (17)	Balance (18)
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2020	5,880	5,880	0	15,540	9,660	0	10,350	4,470
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2023	3,140	16,490	830	18,000	52,090	1,170	3,840	53,370
2024	2,530	19,020	1,180	18,280	69,020	1,210	2,820	54,870
2025	1,620	20,640	1,570	18,560	87,530	1,250	2,580	57,080
2026	7,980	28,620	1,990	18,850	100,390	1,300	1,620	52,020
2027	1,670	30,290	2,280	19,140	120,140	1,180	7,200	58,730
2028	2,690	32,980	2,730	19,430	139,610	1,330	1,620	58,990
2029	3,440	36,420	3,170	19,730	159,070	1,340	2,820	59,710
2030	5,460	41,880	3,610	20,030	177,250	1,360	3,660	59,270
2031	3,070	44,950	4,020	20,340	198,540	1,350	6,240	63,790
2032	3,600	48,550	4,510	20,650	220,100	1,450	60	61,700
2033	1,830	50,380	5,000	20,970	244,240	1,400	9,180	70,450
2034	59,040	109,420	5,540	21,290	212,030	1,600	0	13,010
2035	3,780	113,200	4,810	21,620	234,680	300	39,360	48,890
2036	3,320	116,520	5,330	21,950	258,640	1,110	14,520	61,200
2037	1,950	118,470	5,870	22,290	284,850	1,390	5,340	65,980
2038	9,290	127,760	6,470	22,630	304,660	1,500	3,840	62,030
2039	2,010	129,770	6,920	22,980	332,550	1,410	5,880	67,310
2040	2,040	131,810	7,550	23,330	361,390	1,530	3,780	70,580
2041	5,660	137,470	8,200	23,690	387,620	1,600	2,520	69,040
2042	7,780	145,250	8,800	24,050	412,690	1,570	4,860	67,690
2043	2,130	147,380	9,370	24,420	444,350	1,540	5,580	72,680
2044	4,320	151,700	10,090	24,800	474,920	1,650	3,540	73,550
2045	2,200	153,900	10,780	25,180	508,680	1,670	3,600	76,620
2046	9,910	163,810	11,550	25,570	535,890	1,740	2,760	71,210
2047	4,540	168,350	12,160	25,960	569,470	1,620	8,160	76,450
2048	2,300	170,650	12,930	26,360	606,460	1,740	4,560	80,450
2049	2,340	172,990	13,770	26,770	644,660	1,830	2,520	82,460
2050	14,320	187,310	14,630	27,180	672,150	1,870	2,220	72,230
2051	4,180	191,490	15,260	27,600	710,830	1,640	12,960	82,650
2052	2,450	193,940	16,140	28,030	752,550	1,880	4,440	86,520
2053	4,960	198,900	17,080	28,460	793,130	1,960	1,980	85,500
2054	19,610	218,510	18,000	28,900	820,420	1,940	7,140	74,970
2055	2,560	221,070	18,620	29,350	865,830	1,700	14,340	88,450
2056	7,110	228,180	19,650	29,800	908,170	2,010	4,320	87,670
2057	2,640	230,820	20,620	30,260	956,410	1,990	6,060	93,080
2058	9,930	240,750	21,710	30,730	998,920	2,110	2,400	87,660
2059	5,440	246,190	22,680	31,200	1,047,360	1,990	11,160	95,370
2060	2,760	248,950	23,780	31,680	1,100,060	2,160	3,480	98,250
2061	4,870	253,820	24,970	32,170	1,152,330	2,230	1,980	97,590
2062	13,410	267,230	26,160	32,670	1,197,750	2,220	7,380	93,780
2063	2,890	270,120	27,190	33,170	1,255,220	2,130	21,960	114,980
2064	73,460	343,580	28,490	33,680	1,243,930	2,610	0	44,130
2065	5,960	349,540	28,240	34,200	1,300,410	1,000	51,480	90,650
2066	13,450	362,990	29,520	34,730	1,351,210	2,060	16,380	95,640
2067	3,080	366,070	30,670	35,260	1,414,060	2,170	9,120	103,850
2068	6,240	372,310	32,100	35,800	1,475,720	2,360	5,940	105,910
2069	3,170	375,480	33,500	36,350	1,542,400	2,400	5,040	110,180



SUMMARY		
50-Year Minimum Balance =	23,560	13,010
50-Year Maximum Balance =	1,542,400	114,980

## COMPARISON TO OTHER PROPERTIES

Sample Size = 100 HOA's/POA's



**Legend:**

This comparison only compares the first study year to other properties.

% Funded -- Used-up life divided by Useful Life times Current Cost.

Reserve Depletion Factor -- Number of years the amount-on-hand will fund if no more is contributed to the reserves.

AOH - Reserve funds available at start of fiscal year.

Cost Per Owner - The average cost per owner to meet the reserve requirement compared to other properties.

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Attention is directed to columns (1) COMPONENT, (3) AVG and (4) REM USEFUL LIFE, and (5) ESTIMATED COST IN CURRENT DOLLARS on Page A1. These entries, along with reserve savings at the start of the fiscal year and contingency built into the funding plan, determine the annual contribution needed to support the reserves. The remaining useful life approximates the time period when funding should be available for repair/replacement work. Good maintenance and repair practices prior to replacement can extend component useful life; conversely, poor or no maintenance/repair will shorten life and result in more cost to the association. Following comments are provided for components that may need further explanation.

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**PAVEMENTS/EMERGENCY ACCESS DRIVEWAY**

PAVEMENTS

The following recommendations should be implemented to extend pavement useful life: 1) Have a preventive maintenance program - preventive maintenance consist of sealing open cracks (equal to or greater than 1/8"), repair wearing surface/base/sub-base areas that have failed (distinguished by "alligator" or "chicken wire" cracking), apply a seal coat to the entire surface and repaint traffic markings. An additional benefit of sealcoating and traffic markings is the pavement will look uniform and that enhances property appearance. Funding for this work is identified as "Preventive Maintenance" and/or "Immediate Repairs for Life Extension." Although we allow for preventive maintenance to be done every four years, if cracks open or asphalt failures occur sooner they should be repaired as needed. Contingency built into the funding plan should be more than adequate to fund this work, 2) Be prepared to repave all asphalt around the time period shown in the table. Notes: a) Asphalt is an oil based product - price varies with the cost of a barrel of oil, and b) When pavements are shared with adjacent properties quantity shown is one-half the shared amount. c) Although we allow for 100% of the asphalt to be repaved our experience supports a smaller percentage of the base/sub-base will need repairs prior to overlaying.

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**OTHER PROPERTY FEATURES**

ENTRANCE(S)

Provides for masonry repairs/repointing, name restoration, cleaning, electric service/lighting, and other work needed to keep entrance features in good condition.

TREES/SHRUBBERY

A reasonable amount to replace dead or diseased common area trees and shrubbery. Does not include normal landscaping upkeep which is funded from the operating account nor large scale improvements.

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**EXCLUSIONS**

PRESSURE WASHING/PAINTING/STAINING  
CATASTROPHES

Not included in the reserves. Maintenance work, properly funded from the operating account.  
Are not predictable events - no reserve allowance. If one occurs funding from other sources may be needed if the contingency built into the reserves is insufficient to cover expenses.

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