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## Update "No-Site-Visit" Reserve Study



### **Tall Firs Federal Way, WA**

**Report #: 6317-10**  
**For Period Beginning: January 1, 2018**  
**Expires: December 31, 2018**

**Date Prepared: May 17, 2017**



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**Hello, and welcome to your Reserve Study!**

**T**his Report is a valuable budget planning tool, for with it you control the future of your association. It contains all the fundamental information needed to understand your current and future Reserve obligations, the most significant expenditures your association will face.

**W**ith respect to Reserves, this Report will tell you "where you are," and "where to go from here."

In this Report, you will find...

- 1) A List of What you're Reserving For**
- 2) An Evaluation of your Reserve Fund Size and Strength**
- 3) A Recommended Multi-Year Reserve Funding Plan**

**More Questions?**

Visit our website at [www.ReserveStudy.com](http://www.ReserveStudy.com) or call us at:

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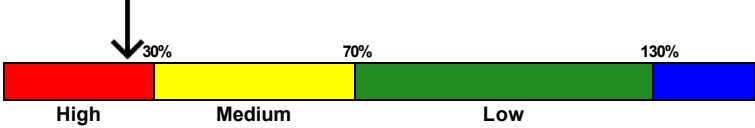
## 3- Minute Executive Summary

**Association:** Tall Firs **Assoc. #: 6317-10**  
**Location:** Federal Way, WA **# of Units: 201**  
**Report Period:** January 1, 2018 through December 31, 2018

**Findings/Recommendations as-of: January 1, 2018**

Starting Reserve Balance . . . . .	\$676,971
Current Fully Funded Reserve Balance . . . . .	\$2,702,414
Percent Funded . . . . .	25.1 %
Average Reserve Deficit or (Surplus) Per Unit . . . . .	\$10,077
Recommended 2018 100% Monthly "Full Funding" Contributions . . . . .	\$25,900
Recommended 2018 70% Monthly "Threshold Funding" Contributions . . . . .	\$23,250
2018 "Baseline Funding" minimum contributions to keep Reserves above \$0 . . . .	\$20,485
Most Recent Budgeted Contribution Rate . . . . .	\$25,705

**Reserves % Funded: 25.1%**



**Special Assessment Risk:**

**Economic Assumptions:**

**Net Annual "After Tax" Interest Earnings Accruing to Reserves . . . . . 1.00 %**  
**Annual Inflation Rate . . . . . 3.00 %**

- This is a Update "No-Site-Visit" Reserve Study, meeting or exceeding all requirements of the RCW. This study was prepared by, or under the supervision of a credentialed Reserve Specialist (RS™).
- Your Reserve Fund is currently 25.1 % Funded. This means the association’s special assessment & deferred maintenance risk is currently High. The objective of your multi-year Funding Plan is to fund your Reserves to a level where you will enjoy a low risk of such Reserve cash flow problems.
- Based on this starting point and your anticipated future expenses, our recommendation is to budget Reserve Contributions to within the 70% to 100% range as noted above. The 100% “Full” and 70% contribution rates are designed to gradually achieve these funding objectives by the end of our 30-year report scope.
- No assets appropriate for Reserve designation known to be excluded. See appendix for component information and the basis of our assumptions.

## Executive Summary

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#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost
<b>Site / Grounds</b>				
100	Concrete - Repair/Replace	5	4	\$3,500
120	Asphalt - Resurface	45	9	\$376,500
121	Asphalt - Seal/Repair	5	4	\$57,500
140	Privacy Fence: Wood - Replace (a)	20	14	\$25,950
141	Privacy Fence: Wood - Replace (b)	20	4	\$41,900
147	Trash Enclosures: Wood - Repair	15	10	\$3,600
155	Fence: Chain Link - Replace	40	0	\$86,650
160	Pole Lights - Replace	30	1	\$93,550
165	RV Lot Lights - Replace	30	26	\$8,500
182	Site Drainage - Maintain/Repair	4	1	\$5,100
190	Trees - Trim/Remove	1	0	\$5,450
205	Mailboxes - Repair/Replace	30	27	\$23,200
<b>Recreation</b>				
301	Pool Fence - Repair/Replace	30	21	\$12,700
303	Pool - Resurface	12	5	\$6,800
305	Pool - Retile	24	5	\$3,500
320	Tennis/Basketball Court - Refinish	10	5	\$4,600
350	Acrylic Spa - Replace	20	0	\$10,000
426	Rec. Bldg. Siding - Replace	40	0	\$12,350
428	Rec. Bldg. Roof - Replace	25	21	\$11,700
432	Rec. Bldg. Interior Walls - Repaint	10	8	\$2,000
434	Rec. Bldg. Carpet - Replace	10	8	\$3,500
440	Rec. Bldg. Bathrooms - Refurbish	20	19	\$2,250
<b>Building Exteriors</b>				
500	Unit Shingle Roof - Replace (a)	25	20	\$191,000
501	Unit Shingle Roof - Replace (b)	25	4	\$685,000
502	Unit Shingle Roof - Replace (c)	25	23	\$129,000
508	Skylights - Repair/Replace	25	19	\$19,100
510	Gutters/Downs - Repair/Replace (a)	25	20	\$31,950
511	Gutters/Downs - Repair/Replace (b)	25	4	\$31,500
520	Siding: Vinyl - Repair/Replace	40	21	\$2,296,000
533	Exterior Surfaces - Paint/Caulk	8	7	\$87,500
534	Exterior Surfaces: Carports - Paint	8	1	\$27,500
542	Exposed Decks - Repair/Replace (b)	0	0	\$82,500
544	Exposed Decks - Repair/Replace (c)	0	1	\$74,000
547	Sheltered Decks - Repr/Replace (b)	0	0	\$36,050
548	Sheltered Decks - Repr/Replace (c)	0	1	\$51,500
580	Detached Carport Roofs - Replace	25	4	\$159,500
751	Resident Managers Unit - Refurbish	5	2	\$5,450
<b>Systems</b>				
975	Utility Vehicle - Repair/Replace	15	2	\$14,900

### 38 Total Funded Components

Note 1: Yellow highlighted line items are expected to require attention in this initial year.

## Introduction



A Reserve Study is the art and science of anticipating, and preparing for, an association's major common area repair and replacement expenses. Partially art, because in this field we are making projections about the future. Partially science, because our work is a combination of research and well-defined computations, following consistent National Reserve Study Standard principles.

The foundation of this and every Reserve Study is your Reserve Component List (what you are reserving for). This is because the Reserve Component List defines the *scope and schedule* of all your anticipated upcoming Reserve projects. Based on that List and your starting balance, we calculate the association's Reserve Fund Strength (reported in terms of "Percent Funded"). Then we compute a Reserve Funding Plan to provide for the Reserve needs of the association. These form the three results of your Reserve Study.



Reserve contributions are not “for the future”. Reserve contributions are designed to offset the ongoing, daily deterioration of your Reserve assets. Done well, a stable, budgeted Reserve Funding Plan will collect sufficient funds from the owners who enjoyed the use of those assets, so the association is financially prepared for the irregular expenditures scattered through future years when those projects eventually require replacement.

## Methodology



For this [Update No-Site-Visit Reserve Study](#), we started with a review of your prior Reserve Study, then looked into recent Reserve expenditures, evaluated how expenditures are handled (ongoing maintenance vs Reserves), and researched any well-established association

precedents. We updated and adjusted your Reserve Component List on the basis of time elapsed since the last Reserve Study and interviews with association representatives.

## *Which Physical Assets are Funded by Reserves?*

There is a national-standard four-part test to determine which expenses should appear in your Reserve Component List. First, it must be a common area maintenance responsibility. Second, the component must have a limited life. Third, the remaining life must be predictable (or it by definition is a *surprise* which cannot be accurately anticipated). Fourth, the component must be above a minimum threshold cost (often between .5% and 1% of an association's total budget). This limits Reserve



RESERVE COMPONENT "FOUR-PART TEST"

Components to major, predictable expenses. Within this framework, it is inappropriate to include *lifetime* components, unpredictable expenses (such as damage due to fire, flood, or earthquake), and expenses more appropriately handled from the Operational Budget or as an insured loss.

## *How do we establish Useful Life and Remaining Useful Life estimates?*

- 1) Visual Inspection (observed wear and age)
- 2) Association Reserves database of experience
- 3) Client History (install dates & previous life cycle information)
- 4) Vendor Evaluation and Recommendation

## *How do we establish Current Repair/Replacement Cost Estimates?*

In this order...

- 1) Actual client cost history, or current proposals
- 2) Comparison to Association Reserves database of work done at similar associations
- 3) Vendor Recommendations
- 4) Reliable National Industry cost estimating guidebooks

## How much Reserves are enough?

Reserve adequacy is not measured in cash terms. Reserve adequacy is found when the *amount* of current Reserve cash is compared to Reserve component deterioration (the *needs of the association*). Having *enough* means the association can execute its projects in a timely manner with existing Reserve funds. Not having *enough* typically creates deferred maintenance or special assessments.

Adequacy is measured in a two-step process:

- 1) Calculate the *value of deterioration* at the association (called Fully Funded Balance, or FFB).
- 2) Compare that to the Reserve Fund Balance, and express as a percentage.



Each year, the *value of deterioration* at the association changes. When there is more deterioration (as components approach the time they need to be replaced), there should be more cash to offset that deterioration and prepare for the expenditure. Conversely, the *value of deterioration* shrinks after projects are accomplished. The *value of deterioration* (the FFB) changes each year, and is a moving but predictable target.

There is a high risk of special assessments and deferred maintenance when the Percent Funded is *weak*, below 30%. Approximately 30% of all associations are in this high risk range. While the 100% point is Ideal (indicating Reserve cash is equal to the *value of deterioration*), a Reserve Fund in the 70% - 130% range is considered strong (low risk of special assessment).

Measuring your Reserves by Percent Funded tells how well prepared your association is for upcoming Reserve expenses. New buyers should be very aware of this important disclosure!



## How much should we contribute?



RESERVE FUNDING PRINCIPLES

According to National Reserve Study Standards, there are four Funding Principles to balance in developing your Reserve Funding Plan. Our first objective is to design a plan that provides you with sufficient cash to perform your Reserve projects on time. Second, a stable contribution is desirable because it keeps these naturally irregular expenses from unsettling the budget.

Reserve contributions that are evenly distributed over current and future owners enable each owner to pay their fair share of the association's Reserve expenses over the years. And finally, we develop a plan that is fiscally responsible and safe for Boardmembers to recommend to their association. Remember, it is the Board's job to provide for the ongoing care of the common areas. Boardmembers invite liability exposure when Reserve contributions are inadequate to offset ongoing common area deterioration.

## What is our Recommended Funding Goal?

Maintaining the Reserve Fund at a level equal to the *value* of deterioration is called "Full Funding" (100% Funded). As each asset ages and becomes "used up," the Reserve Fund grows proportionally. **This is simple, responsible, and our recommendation.** Evidence shows that associations in the 70 - 130% range *enjoy a low risk of special assessments or deferred maintenance.*



FUNDING OBJECTIVES

Allowing the Reserves to fall close to zero, but not below zero, is called Baseline Funding. Doing so allows the Reserve Fund to drop into the 0 - 30% range, where there is a high risk of special assessments & deferred maintenance. Since Baseline Funding still provides for the timely execution of all Reserve projects, and only the "margin of safety" is different, Baseline Funding contributions average only 10% - 15% less than Full Funding contributions. Threshold Funding is the title of all other Cash or Percent Funded objectives *between* Baseline Funding and Full Funding.

## Projected Expenses

While this Reserve Study looks forward 30 years, we have no expectation that all these expenses will all take place as anticipated. This Reserve Study needs to be updated annually because we expect the timing of these expenses to shift and the size of these expenses to change. We do feel more certain of the timing and cost of near-term expenses than expenses many years away.

The figure below summarizes the projected future expenses at your association as defined by your Reserve Component List. A summary of these expenses are shown in the 30-yr Summary Table, while details of the projects that make up these expenses are shown in the Cash Flow Detail Table.

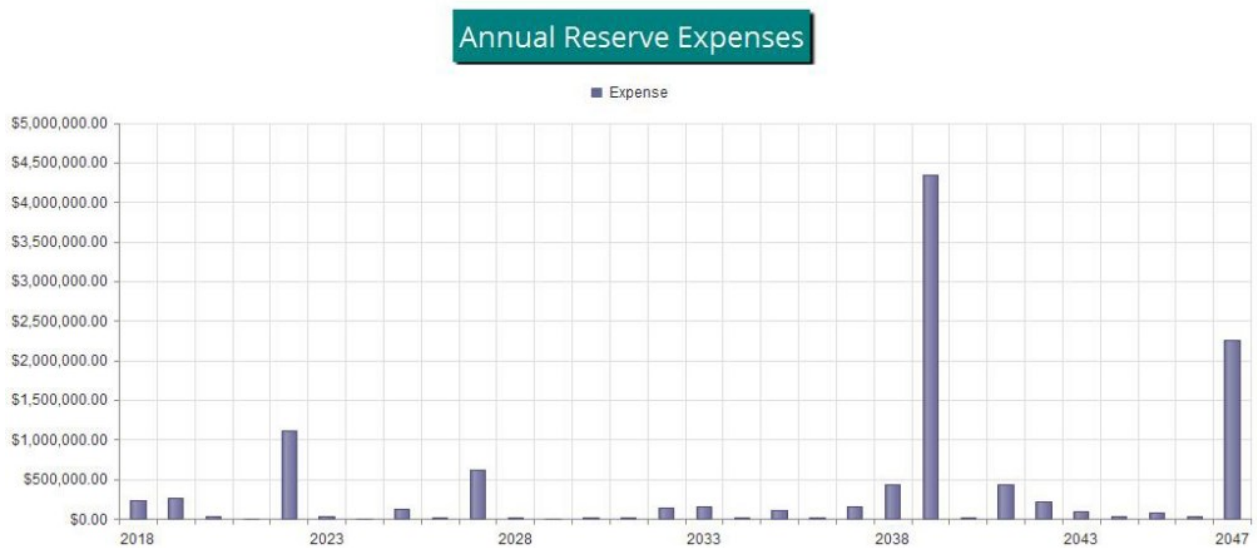


Figure 1

## Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be \$676,971 as-of the start of your Fiscal Year on 1/1/2018. As of that date , your Fully Funded Balance is computed to be \$2,702,414 (see Fully Funded Balance Table). This figure represents the deteriorated value of your common area components.

## Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of \$25,900 per month this Fiscal Year. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both the 30-yr Summary Table and the Cash Flow Detail Table.

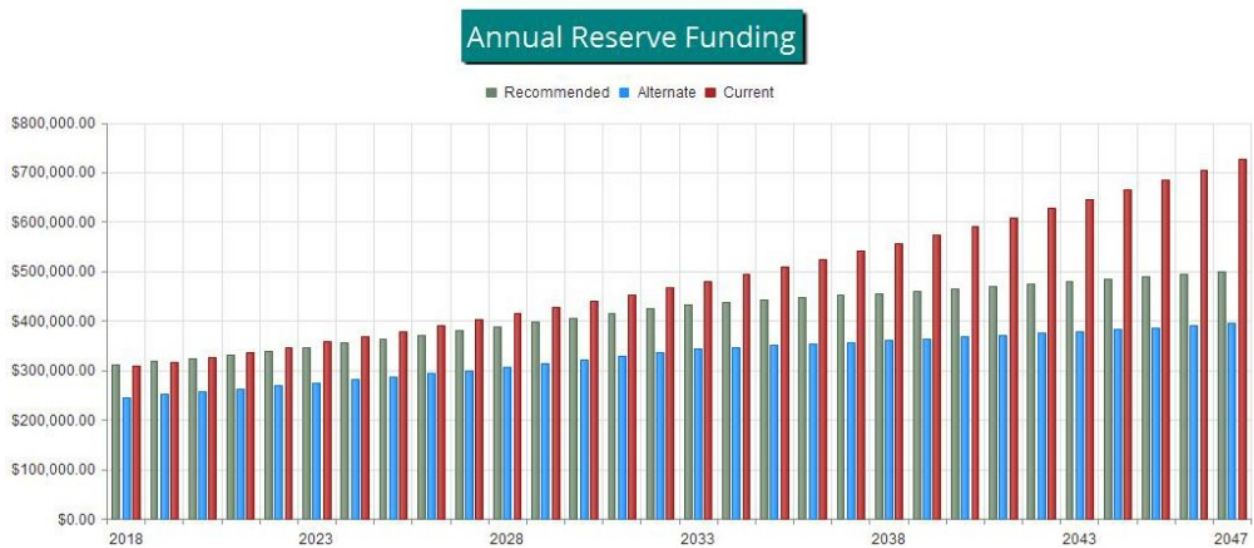


Figure 2

The following chart shows your Reserve balance under our recommended Full Funding Plan, an alternate Baseline Funding Plan, and at your current budgeted contribution rate (assumes future increases), compared to your always-changing Fully Funded Balance target.

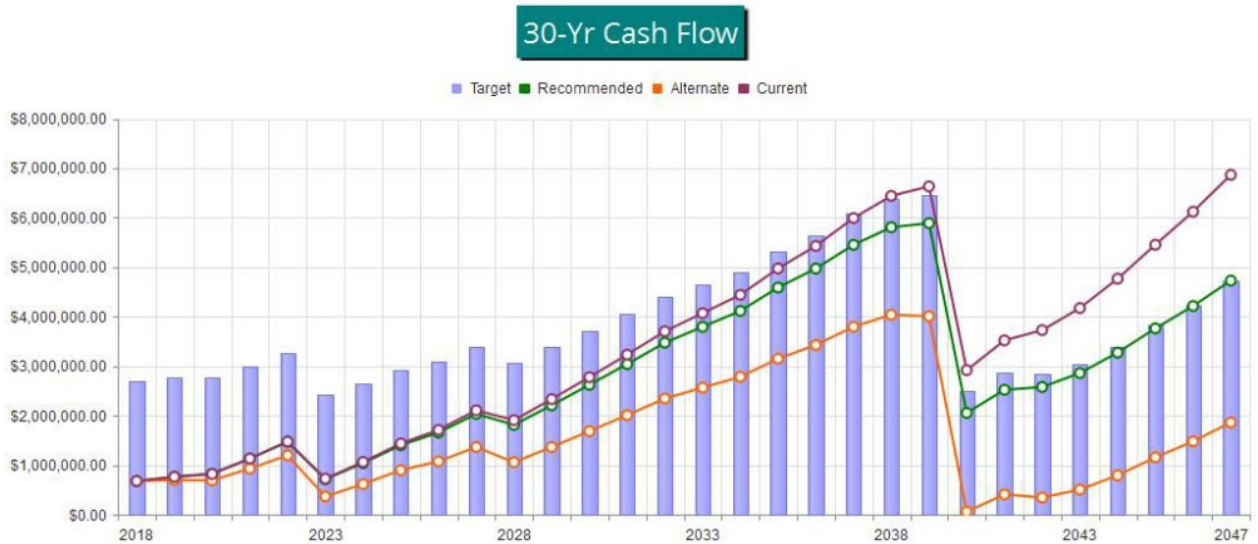


Figure 3

This figure shows the same information plotted on a Percent Funded scale. It is clear here to see how your Reserve Fund strength approaches the 100% Funded level under our recommended multi-yr Funding Plan.

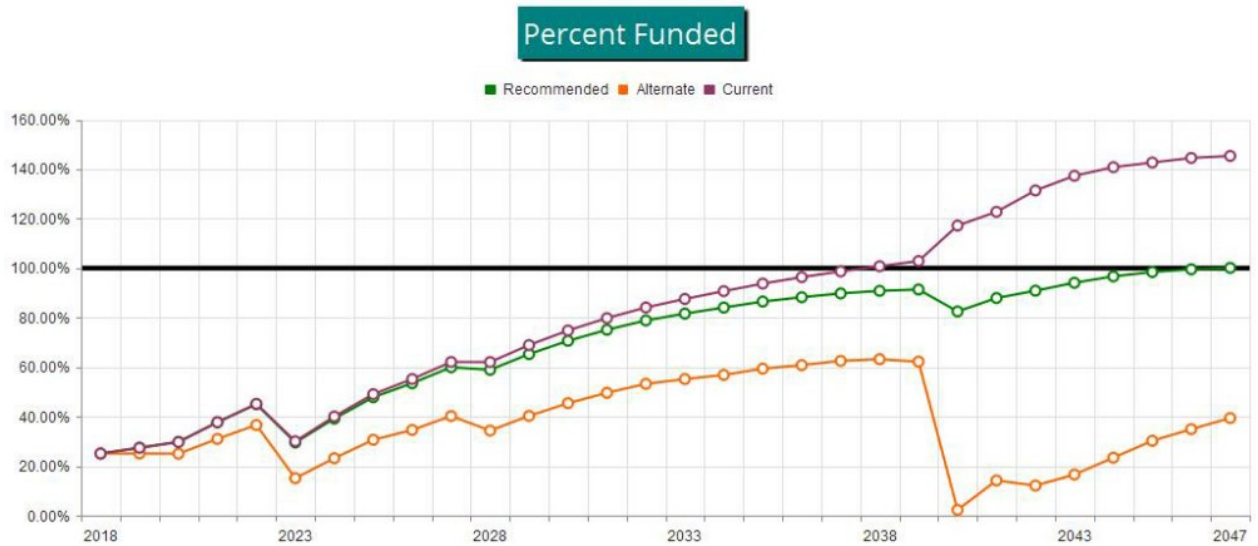


Figure 4

## **Table Descriptions**

The tabular information in this Report is broken down into nine tables, not all which may have been chosen by your Project Manager to appear in your report. Tables are listed in the order in which they appear in your Report.

Executive Summary is a summary of your Reserve Components

Budget Summary is a management and accounting tool, summarizing groupings of your Reserve Components.

Analysis Summary provides a summary of the starting financial information and your Project Manager's Financial Analysis decision points.

Component List Detail discloses key Component information, providing the foundation upon which the financial analysis is performed.

Fully Funded Balance shows the calculation of the Fully Funded Balance for each of your components, and their contributions to the association total. For each component, the Fully Funded Balance is the fraction of life used up multiplied by its estimated Current Replacement Cost.

Component Significance shows the relative significance of each component to Reserve funding needs of the association, helping you see which components have more (or less) influence than others on your total Reserve contribution rate. The deterioration cost/yr of each component is calculated by dividing the estimated Current Replacement Cost by its Useful Life, then that component's percentage of the total is displayed.

Acct/Tax Summary provides information on each Component's proportionate portion of key totals, valuable to accounting professionals primarily during tax preparation time of year.

30-Yr Summary provides a one-page 30-year summary of the cash flowing into and out of the Reserve Fund, with a display of the Fully Funded Balance, Percent Funded, and special assessment risk at the beginning of each year.

Cash Flow Detail shows the detailed income and expenses for each of the next 30 years. This table makes it possible to see which components are projected to require repair or replacement in a particular year, and the size of those individual expenses.

**Starting Information:**

# Units:	201	
Base Year:	2018	
Period Start:	01/01/2018	
Period End:	12/31/2018	
Site Inspection Date:	No Site Visit	
Total Assessments:	\$76,250	Per Unit \$379.35
Budgeted Res Contrib:	\$25,705	Per Unit \$127.89
Starting Reserve Bal:	\$676,971	
Interest:	1.00 %	
Inflation:	3.00 %	

**Status:**

Proportional FFB:	\$2,702,414
Percent Funded:	25.1 %
Swain Factor:	2.525 %

**Recommendation:**

<u>Recommended</u> Contribution Rate:	\$25,900	Per Unit \$128.86
<u>Alternate</u> Contribution Rate:	\$20,485	Per Unit \$101.92
Annual Increase:	2.25 %	
# of Years:	15	
Secondary Annual Increase:	1.00 %	
# of Years:	30	
1st Yr S.A.:	\$0	Per Unit \$0.00
2nd Yr S.A.:	\$0	Per Unit \$0.00
3rd Yr S.A.:	\$0	Per Unit \$0.00
4th Yr S.A.:	\$0	Per Unit \$0.00
5th Yr S.A.:	\$0	Per Unit \$0.00
Minimum Balance (Full):	\$676,971.00	
Min Margin (Full):	47.34 %	
Minimum Balance (Alt):	\$6,877.46	
Min Margin (Alt):	0.30 %	

**System Defaults:**

Current Annual Increase:	3.00 %
Budget Cycles Per Year:	12

# Reserve Component List Detail

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# Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate		
				Best Case	Worst Case	
<b>Site / Grounds</b>						
100	Concrete - Repair/Replace	Extensive SF	5	4	\$3,000	\$4,000
120	Asphalt - Resurface	~ 188,300 SF	45	9	\$339,000	\$414,000
121	Asphalt - Seal/Repair	~ 188,300 SF	5	4	\$50,000	\$65,000
140	Privacy Fence: Wood - Replace (a)	(38) of (100) wood fences	20	14	\$22,200	\$29,700
141	Privacy Fence: Wood - Replace (b)	(62) of (100) wood fences	20	4	\$35,000	\$48,800
147	Trash Enclosures: Wood - Repair	(8) wood enclosures	15	10	\$2,800	\$4,400
155	Fence: Chain Link - Replace	~ 3,670 LF	40	0	\$74,300	\$99,000
160	Pole Lights - Replace	(22) assorted assemblies	30	1	\$71,100	\$116,000
165	RV Lot Lights - Replace	(3) Pole lights	30	26	\$7,400	\$9,600
182	Site Drainage - Maintain/Repair	Extensive system	4	1	\$4,100	\$6,100
190	Trees - Trim/Remove	Extensive trees	1	0	\$4,300	\$6,600
205	Mailboxes - Repair/Replace	~(15) clusters boxes	30	27	\$20,600	\$25,800
<b>Recreation</b>						
301	Pool Fence - Repair/Replace	~ 190 LF	30	21	\$11,600	\$13,800
303	Pool - Resurface	~ 1,350 SF	12	5	\$5,800	\$7,800
305	Pool - Retile	~ 124 LF	24	5	\$2,900	\$4,100
320	Tennis/Basketball Court - Refinish	(3) Std size courts	10	5	\$3,400	\$5,800
350	Acrylic Spa - Replace	(1) acrylic spa	20	0	\$8,000	\$12,000
426	Rec. Bldg. Siding - Replace	~ 1,440 SF	40	0	\$9,200	\$15,500
428	Rec. Bldg. Roof - Replace	~ 1,800 SF	25	21	\$9,600	\$13,800
432	Rec. Bldg. Interior Walls - Repaint	(3) rooms	10	8	\$1,500	\$2,500
434	Rec. Bldg. Carpet - Replace	~ 60 Sq Yd	10	8	\$2,800	\$4,200
440	Rec. Bldg. Bathrooms - Refurbish	(2) bathrooms	20	19	\$1,800	\$2,700
<b>Building Exteriors</b>						
500	Unit Shingle Roof - Replace (a)	(10) buildings	25	20	\$148,000	\$234,000
501	Unit Shingle Roof - Replace (b)	(33) buildings	25	4	\$659,000	\$711,000
502	Unit Shingle Roof - Replace (c)	(8) buildings	25	23	\$110,000	\$148,000
508	Skylights - Repair/Replace	~ (18) skylights	25	19	\$14,800	\$23,400
510	Gutters/Downs - Repair/Replace (a)	~ 5,000 LF (25) Buildings	25	20	\$25,800	\$38,100
511	Gutters/Downs - Repair/Replace (b)	~ 5,200 LF (27) Buildings	25	4	\$26,000	\$37,000
520	Siding: Vinyl - Repair/Replace	~ 245,800 SF	40	21	\$1,892,000	\$2,700,000
533	Exterior Surfaces - Paint/Caulk	Gables, eaves, trim, etc.	8	7	\$80,000	\$95,000
534	Exterior Surfaces: Carports - Paint	(38) Carports	8	1	\$20,000	\$35,000
542	Exposed Decks - Repair/Replace (b)	~ (10) of ~(56) decks	0	0	\$75,000	\$90,000
544	Exposed Decks - Repair/Replace (c)	~ (9) of (56) decks	0	1	\$67,000	\$81,000
547	Sheltered Decks - Repr/Replace (b)	~(16) of ~(48) decks	0	0	\$30,900	\$41,200
548	Sheltered Decks - Repr/Replace (c)	~(12) of ~(48) decks	0	1	\$41,200	\$61,800
580	Detached Carport Roofs - Replace	~ 46,000 SF	25	4	\$128,000	\$191,000
751	Resident Managers Unit - Refurbish	~ 1,200 SF	5	2	\$4,300	\$6,600
<b>Systems</b>						
975	Utility Vehicle - Repair/Replace	(1) Kubota RTV 900	15	2	\$12,800	\$17,000
38 Total Funded Components						

# Fully Funded Balance

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#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
<b>Site / Grounds</b>								
100	Concrete - Repair/Replace	\$3,500	X	1	/	5	=	\$700
120	Asphalt - Resurface	\$376,500	X	36	/	45	=	\$301,200
121	Asphalt - Seal/Repair	\$57,500	X	1	/	5	=	\$11,500
140	Privacy Fence: Wood - Replace (a)	\$25,950	X	6	/	20	=	\$7,785
141	Privacy Fence: Wood - Replace (b)	\$41,900	X	16	/	20	=	\$33,520
147	Trash Enclosures: Wood - Repair	\$3,600	X	5	/	15	=	\$1,200
155	Fence: Chain Link - Replace	\$86,650	X	40	/	40	=	\$86,650
160	Pole Lights - Replace	\$93,550	X	29	/	30	=	\$90,432
165	RV Lot Lights - Replace	\$8,500	X	4	/	30	=	\$1,133
182	Site Drainage - Maintain/Repair	\$5,100	X	3	/	4	=	\$3,825
190	Trees - Trim/Remove	\$5,450	X	1	/	1	=	\$5,450
205	Mailboxes - Repair/Replace	\$23,200	X	3	/	30	=	\$2,320
<b>Recreation</b>								
301	Pool Fence - Repair/Replace	\$12,700	X	9	/	30	=	\$3,810
303	Pool - Resurface	\$6,800	X	7	/	12	=	\$3,967
305	Pool - Retile	\$3,500	X	19	/	24	=	\$2,771
320	Tennis/Basketball Court - Refinish	\$4,600	X	5	/	10	=	\$2,300
350	Acrylic Spa - Replace	\$10,000	X	20	/	20	=	\$10,000
426	Rec. Bldg. Siding - Replace	\$12,350	X	40	/	40	=	\$12,350
428	Rec. Bldg. Roof - Replace	\$11,700	X	4	/	25	=	\$1,872
432	Rec. Bldg. Interior Walls - Repaint	\$2,000	X	2	/	10	=	\$400
434	Rec. Bldg. Carpet - Replace	\$3,500	X	2	/	10	=	\$700
440	Rec. Bldg. Bathrooms - Refurbish	\$2,250	X	1	/	20	=	\$113
<b>Building Exteriors</b>								
500	Unit Shingle Roof - Replace (a)	\$191,000	X	5	/	25	=	\$38,200
501	Unit Shingle Roof - Replace (b)	\$685,000	X	21	/	25	=	\$575,400
502	Unit Shingle Roof - Replace (c)	\$129,000	X	2	/	25	=	\$10,320
508	Skylights - Repair/Replace	\$19,100	X	6	/	25	=	\$4,584
510	Gutters/Downs - Repair/Replace (a)	\$31,950	X	5	/	25	=	\$6,390
511	Gutters/Downs - Repair/Replace (b)	\$31,500	X	21	/	25	=	\$26,460
520	Siding: Vinyl - Repair/Replace	\$2,296,000	X	19	/	40	=	\$1,090,600
533	Exterior Surfaces - Paint/Caulk	\$87,500	X	1	/	8	=	\$10,938
534	Exterior Surfaces: Carports - Paint	\$27,500	X	7	/	8	=	\$24,063
542	Exposed Decks - Repair/Replace (b)	\$82,500	X	0	/	0	=	\$82,500
544	Exposed Decks - Repair/Replace (c)	\$74,000	X	0	/	0	=	\$37,000
547	Sheltered Decks - Repr/Replace (b)	\$36,050	X	0	/	0	=	\$36,050
548	Sheltered Decks - Repr/Replace (c)	\$51,500	X	0	/	0	=	\$25,750
580	Detached Carport Roofs - Replace	\$159,500	X	21	/	25	=	\$133,980
751	Resident Managers Unit - Refurbish	\$5,450	X	3	/	5	=	\$3,270
<b>Systems</b>								
975	Utility Vehicle - Repair/Replace	\$14,900	X	13	/	15	=	\$12,913
								\$2,702,414



# Accounting Tax Summary

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NSV

#	Component	UL	RUL	Current Cost Estimate	Fully Funded Balance	Current Fund Balance	Proportional Reserve Contribs
<b>Site / Grounds</b>							
100	Concrete - Repair/Replace	5	4	\$3,500	\$700	\$700	\$110
120	Asphalt - Resurface	45	9	\$376,500	\$301,200	\$0	\$1,317
121	Asphalt - Seal/Repair	5	4	\$57,500	\$11,500	\$11,500	\$1,810
140	Privacy Fence: Wood - Replace (a)	20	14	\$25,950	\$7,785	\$0	\$204
141	Privacy Fence: Wood - Replace (b)	20	4	\$41,900	\$33,520	\$33,520	\$330
147	Trash Enclosures: Wood - Repair	15	10	\$3,600	\$1,200	\$0	\$38
155	Fence: Chain Link - Replace	40	0	\$86,650	\$86,650	\$86,650	\$341
160	Pole Lights - Replace	30	1	\$93,550	\$90,432	\$90,432	\$491
165	RV Lot Lights - Replace	30	26	\$8,500	\$1,133	\$0	\$45
182	Site Drainage - Maintain/Repair	4	1	\$5,100	\$3,825	\$3,825	\$201
190	Trees - Trim/Remove	1	0	\$5,450	\$5,450	\$5,450	\$858
205	Mailboxes - Repair/Replace	30	27	\$23,200	\$2,320	\$0	\$122
<b>Recreation</b>							
301	Pool Fence - Repair/Replace	30	21	\$12,700	\$3,810	\$0	\$67
303	Pool - Resurface	12	5	\$6,800	\$3,967	\$0	\$89
305	Pool - Retile	24	5	\$3,500	\$2,771	\$0	\$23
320	Tennis/Basketball Court - Refinish	10	5	\$4,600	\$2,300	\$0	\$72
350	Acrylic Spa - Replace	20	0	\$10,000	\$10,000	\$10,000	\$79
426	Rec. Bldg. Siding - Replace	40	0	\$12,350	\$12,350	\$12,350	\$49
428	Rec. Bldg. Roof - Replace	25	21	\$11,700	\$1,872	\$0	\$74
432	Rec. Bldg. Interior Walls - Repaint	10	8	\$2,000	\$400	\$0	\$31
434	Rec. Bldg. Carpet - Replace	10	8	\$3,500	\$700	\$0	\$55
440	Rec. Bldg. Bathrooms - Refurbish	20	19	\$2,250	\$113	\$0	\$18
<b>Building Exteriors</b>							
500	Unit Shingle Roof - Replace (a)	25	20	\$191,000	\$38,200	\$0	\$1,203
501	Unit Shingle Roof - Replace (b)	25	4	\$685,000	\$575,400	\$40,559	\$4,313
502	Unit Shingle Roof - Replace (c)	25	23	\$129,000	\$10,320	\$0	\$812
508	Skylights - Repair/Replace	25	19	\$19,100	\$4,584	\$0	\$120
510	Gutters/Downs - Repair/Replace (a)	25	20	\$31,950	\$6,390	\$0	\$201
511	Gutters/Downs - Repair/Replace (b)	25	4	\$31,500	\$26,460	\$26,460	\$198
520	Siding: Vinyl - Repair/Replace	40	21	\$2,296,000	\$1,090,600	\$0	\$9,035
533	Exterior Surfaces - Paint/Caulk	8	7	\$87,500	\$10,938	\$0	\$1,722
534	Exterior Surfaces: Carports - Paint	8	1	\$27,500	\$24,063	\$24,063	\$541
542	Exposed Decks - Repair/Replace (b)	0	0	\$82,500	\$82,500	\$82,500	\$0
544	Exposed Decks - Repair/Replace (c)	0	1	\$74,000	\$37,000	\$37,000	\$0
547	Sheltered Decks - Repr/Replace (b)	0	0	\$36,050	\$36,050	\$36,050	\$0
548	Sheltered Decks - Repr/Replace (c)	0	1	\$51,500	\$25,750	\$25,750	\$0
580	Detached Carport Roofs - Replace	25	4	\$159,500	\$133,980	\$133,980	\$1,004
751	Resident Managers Unit - Refurbish	5	2	\$5,450	\$3,270	\$3,270	\$172
<b>Systems</b>							
975	Utility Vehicle - Repair/Replace	15	2	\$14,900	\$12,913	\$12,913	\$156
38 Total Funded Components					\$2,702,414	\$676,971	\$25,900

# 30-Year Reserve Plan Summary

6317-10  
NSV

Fiscal Year Start: 2018

Interest: 1.00 %

Inflation: 3.00 %

Reserve Fund Strength Calculations: (All values of Fiscal Year Start Date)

Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	Reserve Contribs.	Loan or Special Assmts	Interest Income	Reserve Expenses
2018	\$676,971	\$2,702,414	25.1 %	High	\$310,800	\$0	\$7,192	\$233,000
2019	\$761,963	\$2,777,606	27.4 %	High	\$317,793	\$0	\$7,921	\$264,813
2020	\$822,863	\$2,762,738	29.8 %	High	\$324,943	\$0	\$9,761	\$27,371
2021	\$1,130,197	\$2,997,227	37.7 %	Medium	\$332,255	\$0	\$12,993	\$5,955
2022	\$1,469,489	\$3,266,201	45.0 %	Medium	\$339,730	\$0	\$10,904	\$1,107,895
2023	\$712,228	\$2,413,804	29.5 %	High	\$347,374	\$0	\$8,752	\$29,504
2024	\$1,038,851	\$2,652,300	39.2 %	Medium	\$355,190	\$0	\$12,188	\$6,508
2025	\$1,399,721	\$2,927,530	47.8 %	Medium	\$363,182	\$0	\$15,278	\$121,020
2026	\$1,657,161	\$3,099,142	53.5 %	Medium	\$371,354	\$0	\$18,443	\$13,871
2027	\$2,033,087	\$3,392,517	59.9 %	Medium	\$379,709	\$0	\$19,215	\$620,485
2028	\$1,811,526	\$3,076,322	58.9 %	Medium	\$388,252	\$0	\$20,088	\$12,162
2029	\$2,207,704	\$3,383,848	65.2 %	Medium	\$396,988	\$0	\$24,135	\$7,544
2030	\$2,621,282	\$3,712,189	70.6 %	Low	\$405,920	\$0	\$28,294	\$15,541
2031	\$3,039,956	\$4,049,181	75.1 %	Low	\$415,054	\$0	\$32,546	\$15,493
2032	\$3,472,063	\$4,403,581	78.8 %	Low	\$424,392	\$0	\$36,310	\$139,763
2033	\$3,793,002	\$4,648,082	81.6 %	Low	\$433,941	\$0	\$39,521	\$151,980
2034	\$4,114,484	\$4,895,025	84.1 %	Low	\$438,280	\$0	\$43,491	\$8,746
2035	\$4,587,510	\$5,304,829	86.5 %	Low	\$442,663	\$0	\$47,768	\$107,766
2036	\$4,970,176	\$5,633,094	88.2 %	Low	\$447,090	\$0	\$52,082	\$18,642
2037	\$5,450,706	\$6,071,410	89.8 %	Low	\$451,561	\$0	\$56,252	\$153,958
2038	\$5,804,562	\$6,392,155	90.8 %	Low	\$456,076	\$0	\$58,440	\$430,577
2039	\$5,888,502	\$6,446,519	91.3 %	Low	\$460,637	\$0	\$39,689	\$4,336,254
2040	\$2,052,574	\$2,488,851	82.5 %	Low	\$465,244	\$0	\$22,852	\$20,886
2041	\$2,519,784	\$2,866,740	87.9 %	Low	\$469,896	\$0	\$25,474	\$438,038
2042	\$2,577,116	\$2,836,041	90.9 %	Low	\$474,595	\$0	\$27,167	\$220,253
2043	\$2,858,625	\$3,038,774	94.1 %	Low	\$479,341	\$0	\$30,639	\$96,837
2044	\$3,271,768	\$3,385,042	96.7 %	Low	\$484,134	\$0	\$35,149	\$30,084
2045	\$3,760,966	\$3,821,099	98.4 %	Low	\$488,976	\$0	\$39,858	\$75,746
2046	\$4,214,054	\$4,234,171	99.5 %	Low	\$493,865	\$0	\$44,689	\$25,053
2047	\$4,727,556	\$4,723,143	100.1 %	Low	\$498,804	\$0	\$38,660	\$2,257,236

## Accuracy, Limitations, and Disclosures

"The reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair or replacement of a reserve component."

Because we have no control over future events, we do not expect that all the events we anticipate will occur as planned. We expect that inflationary trends will continue, and we expect Reserve funds to continue to earn interest, so we believe that reasonable estimates for these figures are much more accurate than ignoring these economic realities. We can control measurements, which we attempt to establish within 5% accuracy through a combination of on-site measurements, drawings, and satellite imagery. The starting Reserve Balance and interest rate earned on deposited Reserve funds that you provided to us were considered reliable and were not confirmed independently. We have considered the association's representation of current and historical Reserve projects reliable, and we have considered the representations made by its vendors and suppliers to also be accurate and reliable. Component Useful Life, Remaining Useful Life, and Current Cost estimates assume a stable economic environment and lack of natural disasters.

Because the physical condition of your components, the association's Reserve balance, the economic environment, and legislative environment change each year, this Reserve Study is by nature a "one-year" document. Because a long-term perspective improves the accuracy of near-term planning, this Report projects expenses for the next 30 years. It is our recommendation and that of the Financial Accounting Standards Board (FASB) that your Reserve Study be updated each year as part of the annual budget process.

Association Reserves WA, LLC and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. James D. Talaga R.S., company president, is a credentialed Reserve Specialist (#66). All work done by Association Reserves WA, LLC is performed under his Responsible Charge. There are no material issues to our knowledge that have not been disclosed to the client that would cause a distortion of the association's situation

## Terms and Definitions

<b>BTU</b>	British Thermal Unit (a standard unit of energy)
<b>DIA</b>	Diameter
<b>GSF</b>	Gross Square Feet (area). Equivalent to Square Feet
<b>GSY</b>	Gross Square Yards (area). Equivalent to Square Yards
<b>HP</b>	Horsepower
<b>LF</b>	Linear Feet (length)
<b>Effective Age</b>	The difference between Useful Life and Remaining Useful Life. Note that this is not necessarily equivalent to the chronological age of the component.
<b>Fully Funded Balance (FFB)</b>	The value of the deterioration of the Reserve Components. This is the fraction of life "used up" of each component multiplied by its estimated Current Replacement. While calculated for each component, it is summed together for an association total.
<b>Inflation</b>	Cost factors are adjusted for inflation at the rate defined in the Executive Summary and compounded annually. These increasing costs can be seen as you follow the recurring cycles of a component on the "30-yr Income/Expense Detail" table.
<b>Interest</b>	Interest earnings on Reserve Funds are calculated using the average balance for the year (taking into account income and expenses through the year) and compounded monthly using the rate defined in the Executive Summary. Annual interest earning assumption appears in the Executive Summary.
<b>Percent Funded</b>	The ratio, at a particular point in time (the first day of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.
<b>Remaining Useful Life (RUL)</b>	The estimated time, in years, that a common area component can be expected to continue to serve its intended function.
<b>Useful Life (UL)</b>	The estimated time, in years, that a common area component can be expected to serve its intended function.

## Component Details

The primary purpose of the Component Details appendix is to provide the reader with the basis of our funding assumptions resulting from our research and analysis. The information presented here represents a wide range of components that were observed and measured against National Reserve Study Standards to determine if they meet the criteria for reserve funding.

- 1) Common area repair & replacement responsibility
- 2) Component must have a limited useful life
- 3) Life limit must be predictable
- 4) Above a minimum threshold cost (board's discretion – typically ½ to 1% of Annual operating expenses).

Not all your components may have been found appropriate for reserve funding. In our judgment, the components meeting the above four criteria are shown with the Useful Life (how often the project is expected to occur), Remaining Useful Life (when the next instance of the expense will be) and representative market cost range termed “Best Cost” and “Worst Cost”. There are many factors that can result in a wide variety of potential costs, and we have attempted to present the cost range in which your actual expense will occur.

Where no Useful Life, Remaining Useful Life, or pricing exists, the component was deemed inappropriate for Reserve Funding.

## Site / Grounds

**Comp #: 100 Concrete - Repair/Replace**

**Quantity: Extensive SF**

Location: Sidewalks, patios, curbing etc... throughout association  
 Funded?: Yes.

History: 2017, repairs planned. 2016, some repairs completed

Comments: Reportedly the concrete was evaluated in 2016 and their recommended repairs were mostly completed at that time. The Association is planning to finish the remaining recommended repairs this year. Total cost around \$20,000. Future repairs will reportedly be handled in house as needed with some periodic funding work done as noted below. We have reset remaining useful life and included a general allowance for funding purposes for partial repairs. Concrete curb work is now included in this component.

Useful Life: 5 years

Remaining Life: 4 years

Best Case: \$ 3,000

Worst Case: \$4,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project

Cost History

**Comp #: 112 Metal Site Rails - Repair/Replace**

**Quantity: Moderate Linear footage**

Location: Scattered common area locations

Funded?: No. Useful life not predictable.

History: No history reported

Comments: No change from previous 2017 study.

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 120 Asphalt - Resurface**

**Quantity: ~ 188,300 SF**

Location: Roadway, parking areas of association

Funded?: Yes.

History: No major projects known

Comments: Association is planning to seal coat in 2017. We have adjusted the remaining useful life to align with the next sealcoating cycle and increased costs to reflect current market rates.

Useful Life: 45 years

Remaining Life: 9 years

Best Case: \$ 339,000

Worst Case: \$414,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project

Cost History

**Comp #: 121 Asphalt - Seal/Repair**

**Quantity: ~ 188,300 SF**

Location: Roadway, parking areas of association

Funded?: Yes.

History: 2017 Planned. Last reported seal coating and repair was completed in 2010.

Comments: Association is planning to complete in 2017. Reset remaining useful life and used client provided estimate for funding as noted below.

Useful Life: 5 years

Remaining Life: 4 years

Best Case: \$ 50,000

Worst Case: \$65,000

Lower estimate

Higher estimate

Cost Source: Estimate Provided by Client

**Comp #: 140 Privacy Fence: Wood - Replace (a)**

**Quantity: (38) of (100) wood fences**

Location: Ground level patio enclosures

Funded?: Yes.

History: Reportedly replaced within the last few years

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%.

Useful Life: 20 years

Remaining Life: 14 years

Best Case: \$ 22,200

Worst Case: \$29,700

Lower allowance

Higher allowance

Cost Source: Client Cost History, Adjusted for

Inflation

**Comp #: 141 Privacy Fence: Wood - Replace (b)****Quantity: (62) of (100) wood fences**

Location: Ground level patio enclosures

Funded?: Yes.

History: Reportedly replaced in the early 2000's

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%.

Useful Life: 20 years

Remaining Life: 4 years

Best Case: \$ 35,000

Worst Case: \$48,800

Lower allowance

Higher allowance

Cost Source: Client Cost History, Adjusted for Inflation

**Comp #: 147 Trash Enclosures: Wood - Repair****Quantity: (8) wood enclosures**

Location: Scattered throughout association

Funded?: Yes.

History: Reportedly repaired in 2013

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%.

Useful Life: 15 years

Remaining Life: 10 years

Best Case: \$ 2,800

Worst Case: \$4,400

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History

**Comp #: 155 Fence: Chain Link - Replace****Quantity: ~ 3,670 LF**

Location: Perimeter of property and tennis court

Funded?: Yes.

History: No major projects known

Comments: Inflated cost by 3% from previous 2017 study, subtracted one year RUL.

Useful Life: 40 years

Remaining Life: 0 years

Best Case: \$ 74,300

Worst Case: \$99,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #: 160 Pole Lights - Replace****Quantity: (22) assorted assemblies**

Location: Throughout association common area along roads/parking areas

Funded?: Yes.

History: One pole light was reportedly replaced in 2010

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%.

Useful Life: 30 years

Remaining Life: 1 years

Best Case: \$ 71,100

Worst Case: \$116,000

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History

**Comp #: 165 RV Lot Lights - Replace****Quantity: (3) Pole lights**

Location: RV Lot near clubhouse

Funded?: Yes.

History: Installed in 2014

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%.

Useful Life: 30 years

Remaining Life: 26 years

Best Case: \$ 7,400

Worst Case: \$9,600

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History

**Comp #: 175 Irrigation System - Installation****Quantity: Common irrigation**

Location: Throughout common area landscaping

Funded?: No. - No predictable large scale projects at this time without full evaluation of existing systems.

History: No major projects known

Comments: We were informed by management there is currently existing irrigation systems at the site that has not been in use or abandoned. Plans for irrigation system installation has been deferred and removed at this time until full evaluation has been conducted. No funding at this time, cost for improvements to existing system can be included in future updates.

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 182 Site Drainage - Maintain/Repair****Quantity: Extensive system**

Location: Throughout Association

Funded?: Yes. Useful life not predictable

History: Repairs in past couple years

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%. Management indicates there are areas on site that need some work done beyond typical maintenance. The Association is working with the city to alleviate the draining of the street on to the East side of the property. Temporary measures are being made with the anticipated construction of a retention wall in lower areas, however no complete scope of work or final plans have been made.

Useful Life: 4 years

Remaining Life: 1 years

Best Case: \$ 4,100

Worst Case: \$6,100

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History, Client Estimate

**Comp #: 190 Trees - Trim/Remove****Quantity: Extensive trees**

Location: Throughout common areas

Funded?: Yes.

History: Ongoing tree removal and trimming reported

Comments: Kept remaining useful life at 0 years from 2017 study, and increased costs about 3% with no reports of project completion at this time.

Useful Life: 1 years

Remaining Life: 0 years

Best Case: \$ 4,300

Worst Case: \$6,600

Lower allowance

Higher allowance

Cost Source: Estimate Provided by Client

**Comp #: 200 Entry Monuments/Signs - Maintain****Quantity: (4) masonry & wood signs**

Location: Entrances/Exits of complex

Funded?: No. Maintained by in-house maintenance staff as operating expense

History: No history reported

Comments: No change from previous 2017 study.

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 205 Mailboxes - Repair/Replace****Quantity: ~(15) clusters boxes**

Location: Aluminum cluster boxes in wood housings adjacent to roadway throughout association

Funded?: Yes.

History: Recently replaced

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 30 years

Remaining Life: 27 years

Best Case: \$ 20,600

Worst Case: \$25,800

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History



## Recreation

**Comp #: 301 Pool Fence - Repair/Replace****Quantity: ~ 190 LF**

Location: Perimeter of pool area

Funded?: Yes.

History: Reportedly installed in 2009

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 30 years

Remaining Life: 21 years

Best Case: \$ 11,600

Worst Case: \$13,800

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History

**Comp #: 303 Pool - Resurface****Quantity: ~ 1,350 SF**

Location: Adjacent to recreation building

Funded?: Yes.

History: Reportedly last resurfaced in 2011

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 12 years

Remaining Life: 5 years

Best Case: \$ 5,800

Worst Case: \$7,800

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History

**Comp #: 305 Pool - Retile****Quantity: ~ 124 LF**

Location: Perimeter of pool

Funded?: Yes.

History: No major projects known

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 24 years

Remaining Life: 5 years

Best Case: \$ 2,900

Worst Case: \$4,100

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project

Cost History

**Comp #: 307 Pool/Spa Heaters - Replace****Quantity: Coates heaters**

Location: Pool equipment room inside recreation building

Funded?: No. Reportedly historically repaired and replaced as an operating expense

History: Replaced over the years on as-needed basis

Comments: No changes from previous 2017 study.

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 308 Pool/Spa Filters/Pumps - Replace****Quantity: Assorted filters/pumps**

Location: Pool equipment room inside recreation building

Funded?: No. Cost projected to be too small for reserve funding

History: Replaced over the years on as-needed basis

Comments: No changes from previous 2017 study.

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 320 Tennis/Basketball Court - Refinish****Quantity: (3) Std size courts**

Location: Tennis: Southwest corner of association, Basketball: Center/rear of association

Funded?: Yes.

History: Reportedly refinished in 2013

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 10 years

Remaining Life: 5 years

Best Case: \$ 3,400

Worst Case: \$5,800

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History

**Comp #: 330 Racquetball Court - Resurface****Quantity: (1) Std 20 x 40 court**

Location: Interior of maintenance building, center rear of property  
 Funded?: No. Maintained by in-house maintenance staff as operating expense  
 History: Recently sanded and refinished by in-house maintenance staff  
 Comments: No changes from previous 2017 study.  
 Useful Life:  
 Best Case:  
 Cost Source:

Remaining Life:  
 Worst Case:

**Comp #: 350 Acrylic Spa - Replace****Quantity: (1) acrylic spa**

Location: Interior of recreation building  
 Funded?: Yes.  
 History: unknown  
 Comments: Reportedly the spa was not replaced in 2016. Reduced remaining useful life to zero and use client cost estimate to replace as shown below. Management reports they are investigating whether the spa can be repaired before planning for any replacement at this time.  
 Useful Life: 20 years  
 Best Case: \$ 8,000  
 Lower allowance  
 Cost Source: Estimate Provided by Client

Remaining Life: 0 years  
 Worst Case: \$12,000  
 Higher allowance

**Comp #: 355 Rec. Bldg. Sauna - Refurbish****Quantity: (1) sauna**

Location: Interior of recreation building  
 Funded?: No. Cost projected to be too small for reserve funding  
 History: No history reported  
 Comments: No changes from previous 2017 study.  
 Useful Life:  
 Best Case:  
 Cost Source:

Remaining Life:  
 Worst Case:

**Comp #: 426 Rec. Bldg. Siding - Replace****Quantity: ~ 1,440 SF**

Location: Exterior surfaces at recreation building, small portion replaced at pool side with vinyl siding.  
 Funded?: Yes.  
 History: No major projects known  
 Comments: Kept remaining useful life at 0 years from 2017 study, and increased costs about 3% with no reports of project completion at this time.  
 Useful Life: 40 years  
 Best Case: \$ 9,200  
 Lower allowance  
 Cost Source: ARI Cost Database: Similar Project  
 Cost History

Remaining Life: 0 years  
 Worst Case: \$15,500  
 Higher allowance

**Comp #: 428 Rec. Bldg. Roof - Replace****Quantity: ~ 1,800 SF**

Location: Rooftop of Recreation Building  
 Funded?: Yes.  
 History: Replaced in 2014.  
 Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%  
 Useful Life: 25 years  
 Best Case: \$ 9,600  
 Lower allowance  
 Cost Source: Inflated Client Cost History

Remaining Life: 21 years  
 Worst Case: \$13,800  
 Higher allowance

**Comp #: 432 Rec. Bldg. Interior Walls - Repaint****Quantity: (3) rooms**

Location: Interior of recreation building  
 Funded?: Yes.  
 History: 2016, repainted. Reportedly painted in 2013  
 Comments: Reportedly the interiors were repainted in 2016. Reset remaining useful life and used client cost history as noted below.  
 Useful Life: 10 years  
 Best Case: \$ 1,500  
 Lower allowance  
 Cost Source: Client Cost History

Remaining Life: 8 years  
 Worst Case: \$2,500  
 Higher allowance

**Comp #: 434 Rec. Bldg. Carpet - Replace**

**Quantity: ~ 60 Sq Yd**

Location: Interior of recreation building

Funded?: Yes.

History: 2016, carpet replaced.

Comments: Inflated cost by 3% from previous 2015 study, subtracted one year RUL.

Useful Life: 10 years

Remaining Life: 8 years

Best Case: \$ 2,800

Worst Case: \$4,200

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project

Cost History

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**Comp #: 440 Rec. Bldg. Bathrooms - Refurbish**

**Quantity: (2) bathrooms**

Location: Interior of recreation building

Funded?: Yes.

History: No major projects known

Comments: Reportedly the fixtures were replaced in 2016. Reset remaining useful life and used estimated client costs as noted below.

Useful Life: 20 years

Remaining Life: 19 years

Best Case: \$ 1,800

Worst Case: \$2,700

Lower allowance

Higher allowance

Cost Source: Client cost estimate

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## Building Exteriors

**Comp #: 500 Unit Shingle Roof - Replace (a)****Quantity: (10) buildings**

Location: Rooftops of buildings 1, 4, 5, 6, 34, 35, 48, 49, 50 and 51  
Funded?: Yes.

History: Reportedly replaced in 2013

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 25 years

Remaining Life: 20 years

Best Case: \$ 148,000

Worst Case: \$234,000

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History

**Comp #: 501 Unit Shingle Roof - Replace (b)****Quantity: (33) buildings**

Location: Rooftops of remaining buildings: 9, 10, 11, 12, 13, 14, 15, 18-33, 36-44, 47. including Raquetball building.  
Funded?: Yes.

History: Reportedly replaced last in the late 1990's

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 25 years

Remaining Life: 4 years

Best Case: \$ 659,000

Worst Case: \$711,000

Lower allowance

Higher allowance

Cost Source: Client Cost History

**Comp #: 502 Unit Shingle Roof - Replace (c)****Quantity: (8) buildings**

Location: Rooftops of buildings 2, 3, 7, 8, and 16, 17, 45, 46  
Funded?: Yes.

History: 2016, roofs completed.

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%. Management plans to have the roof re-evaluated to determine the priority of the roof repairs.

Useful Life: 25 years

Remaining Life: 23 years

Best Case: \$ 110,000

Worst Case: \$148,000

Lower estimate

Higher estimate

Cost Source: Client Cost bid provided by client

**Comp #: 508 Skylights - Repair/Replace****Quantity: ~ (18) skylights**

Location: Rooftops of buildings 18, 19, 20, 21, 32 and 33  
Funded?: Yes.

History: Reportedly replaced in 2012

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 25 years

Remaining Life: 19 years

Best Case: \$ 14,800

Worst Case: \$23,400

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History

**Comp #: 510 Gutters/Downs - Repair/Replace (a)****Quantity: ~ 5,000 LF (25) Buildings**

Location: Perimeter of buildings & carports, ~(25) Buildings on site  
Funded?: Yes.

History: Assumed prior replacement completed as part of phased roof project

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 25 years

Remaining Life: 20 years

Best Case: \$ 25,800

Worst Case: \$38,100

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project  
Cost History

**Comp #: 511 Gutters/Downs - Repair/Replace (b)****Quantity: ~ 5,200 LF (27) Buildings**

Location: Perimeter of buildings & carports, (27) buildings on site  
Funded?: Yes.

History: unknown

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 25 years

Remaining Life: 4 years

Best Case: \$ 26,000

Worst Case: \$37,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project  
Cost History

**Comp #: 515 Metal Chimneys - Repair/Paint****Quantity: ~ (208) metal chimneys**

Location: Rooftops of buildings

Funded?: No. Annual costs, best handled in operational budget

History: Reportedly repaired and painted as-needed by in-house maintenance staff.

Comments: No changes from previous 2017 study.

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 520 Siding: Vinyl - Repair/Replace****Quantity: ~ 245,800 SF**

Location: Building exterior surfaces: vinyl siding

Funded?: Yes.

History: Replacement started in 1998 over a 3 year period

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs to include project oversight.

Useful Life: 40 years

Remaining Life: 21 years

Best Case: \$ 1,892,000

Worst Case: \$2,700,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project

Cost History

**Comp #: 521 Siding: Vinyl - Clean/Inspect****Quantity: ~ 245,800 SF**

Location: Building exterior surfaces: vinyl siding including Racquetball Building

Funded?: No. Currently managed with operating budget, no funding required

History: 2017, 1/3 of property cleaned for \$4,500.

Comments: Reportedly the siding is cleaned every year at about 1/3 of the total property and begin the process again every 3 years. Funding for this component will be managed by the operating budget. Reserve funding removed.

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 533 Exterior Surfaces - Paint/Caulk****Quantity: Gables, eaves, trim, etc.**

Location: Painted wood surfaces of gables, eaves, trim, decks, fences, etc...

Funded?: Yes.

History: 2017, planned to paint.

Comments: The Association is planning to paint in 2017 and has an estimate for \$85,000, however this does not include the carports and any additional repairs. We are resetting remaining useful life and using client cost bid as noted below.

Useful Life: 8 years

Remaining Life: 7 years

Best Case: \$ 80,000

Worst Case: \$95,000

Lower allowance

Higher allowance

Cost Source: Client Cost bid.

**Comp #: 534 Exterior Surfaces: Carports - Paint****Quantity: (38) Carports**

Location: Painted wood surfaces of the carport and trims

Funded?: Yes.

History: unknown

Comments: Component added in 2017 and split from previous painting component (#533). Remaining useful life and costs below extracted from prior painting component.

Useful Life: 8 years

Remaining Life: 1 years

Best Case: \$ 20,000

Worst Case: \$35,000

Lower allowance

Higher allowance

Cost Source: Client Cost Estimate, Extrapolated.

**Comp #: 535 Windows, Sliders - Repair/Replace****Quantity: Extensive, assorted**

Location: Building exteriors

Funded?: No. Board reports owner's responsibility, not Association

History: No history reported

Comments: No changes from previous 2017 study.

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 538 Doors: Exterior - Repair/Replace****Quantity: Extensive amount**

Location: Exterior locations on buildings  
 Funded?: No. Board suggests owner's responsibility, not Association  
 History: No history reported  
 Comments: No changes from previous 2017 study.  
 Useful Life: 0 years  
 Best Case:  
 Cost Source:

Remaining Life:  
 Worst Case:

**Comp #: 540 Exposed Decks: Vinyl - Resurface****Quantity: ~ (56) elevated decks**

Location: Scattered throughout association, adjacent to rear areas of units  
 Funded?: No. Board reports owner's responsibility, not Association  
 History: No history reported  
 Comments: No change from previous 2017 study.  
 Useful Life:  
 Best Case:  
 Cost Source:

Remaining Life:  
 Worst Case:

**Comp #: 541 Exposed Decks - Repair/Replace (a)****Quantity: ~ (37) of ~ (56) Decks**

Location: Building Exterior  
 Funded?: No.  
 History: Deck repairs completed in 2014  
 Comments: No change from previous 2017 study. This component represent the decks that have been repaired/replaced. Management reports all the decks are being re-evaluated before any further repairs are planned.  
 Useful Life:  
 Best Case:  
 Cost Source:

Remaining Life:  
 Worst Case:

**Comp #: 542 Exposed Decks - Repair/Replace (b)****Quantity: ~ (10) of ~ (56) decks**

Location: Building Exterior  
 Funded?: Yes.  
 History: All deck repairs on hold. These repairs not yet complete. 2017-2018, anticipated to be completed.  
 Comments: Kept remaining useful life at 0 years from 2017 study, and increased costs about 3% with no reports of project completion at this time. Management reports all the decks are being re-evaluated before any further repairs are planned. We have reduced the phasing of the remaining decks to be completed into 2 phases.  
 Useful Life: 0 years  
 Best Case: \$ 75,000  
 Lower allowance  
 Cost Source: Client Cost History

Remaining Life: 0 years  
 Worst Case: \$90,000  
 Higher allowance

**Comp #: 544 Exposed Decks - Repair/Replace (c)****Quantity: ~ (9) of (56) decks**

Location: Building Exterior  
 Funded?: Yes.  
 History: All deck repairs on hold. 2019, planned repairs.  
 Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%. Management reports all the decks are being re-evaluated before any further repairs are planned.  
 Useful Life: 0 years  
 Best Case: \$ 67,000  
 Lower Allowance  
 Cost Source: Client Cost History

Remaining Life: 1 years  
 Worst Case: \$81,000  
 Higher Allowance

**Comp #: 545 Sheltered Decks - Resurface****Quantity: ~ (48) inset decks**

Location: (48) sheltered, inset decks at rear areas of units, not projecting from roof line  
 Funded?: No. Board suggests owner's responsibility, not Association  
 History: No history reported  
 Comments: No change from previous 2017 study. Management reports all the decks are being re-evaluated before any further repairs are planned.  
 Useful Life:  
 Best Case:  
 Cost Source:

Remaining Life:  
 Worst Case:

**Comp #: 546 Sheltered Decks - Repr/Replace (a)****Quantity: ~(8) of ~(48) decks**

Location: sheltered, inset decks at rear areas of units, not projecting from roof line

Funded?: No. One-time project completed

History: Completed in 2014/2015 and prior

Comments: No change from previous 2017 study. Management reports all the decks are being re-evaluated before any further repairs are planned.

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 547 Sheltered Decks - Repr/Replace (b)****Quantity: ~(16) of ~(48) decks**

Location: sheltered, inset decks at rear areas of units, not projecting from roof line

Funded?: Yes.

History: All deck repairs on hold. These repairs not yet complete. 2017-2018, anticipated to be completed.

Comments: Kept remaining useful life at 0 years from 2017 study, and increased costs about 3% with no reports of project completion at this time. Management reports all the decks are being re-evaluated before any further repairs are planned.

Useful Life: 0 years

Remaining Life: 0 years

Best Case: \$ 30,900

Worst Case: \$41,200

Lower Allowance

Higher Allowance

Cost Source: Inflated Client Cost History

**Comp #: 548 Sheltered Decks - Repr/Replace (c)****Quantity: ~(12) of ~(48) decks**

Location: sheltered, inset decks at rear areas of units, not projecting from roof line

Funded?: Yes.

History: All deck repairs on hold. These repairs not yet complete. 2019, anticipated to be completed.

Comments: Kept remaining useful life of 1 year from 2017 study, and increased costs about 3%. Management reports all the decks are being re-evaluated before any further repairs are planned.

Useful Life: 0 years

Remaining Life: 1 years

Best Case: \$ 41,200

Worst Case: \$61,800

Lower allowance

Higher allowance

Cost Source: Inflated Client Cost History

**Comp #: 550 Inset Stairs/Landings - Maintain****Quantity: ~ (28) assemblies**

Location: Scattered through association

Funded?: No. Useful life not predictable

History: 2016, repairs made to some stairwells

Comments: No change from previous 2017 study. Reportedly repairs were made to some stairwells.

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 560 Exterior Lighting - Maintain****Quantity: Extensive outdoor lights**

Location: Exterior common area locations

Funded?: No. Annual costs, best handled in operational budget

History: Reportedly replaced over the years on as-needed basis

Comments: No change from previous 2017 study.

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 570 Carport Car Decking - Replace****Quantity: (21) carports 4,900 SF**

Location: Located at buildings 18, 19, 20, 21, 32 &amp; 33

Funded?: No. Useful life not predictable

History: Car decking and beams at buildings 18, 19, 20, 21, 32 &amp; 33 were repaired and replaced in 2012

Comments: No change from previous 2017 study.

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 580 Detached Carport Roofs - Replace****Quantity: ~ 46,000 SF**

Location: Rooftops of all detached carports

Funded?: Yes.

History: 1997 roof overlay

Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%

Useful Life: 25 years

Remaining Life: 4 years

Best Case: \$ 128,000

Worst Case: \$191,000

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project

Cost History

**Comp #: 585 Carports Posts - Maintain****Quantity: ~ (310) wood posts**

Location: Carports throughout association

Funded?: No. Annual costs, best handled in operational budget

History: Randomly replaced over the years on as-needed basis

Comments: Management reports they plan on doing a comprehensive review to evaluate future repairs. Some repairs were done this year. No changes to from previous 2017 reserve study

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 590 Garage Doors - Replace****Quantity: ~ (44) garage doors**

Location: At each garage

Funded?: No. Board suggests owner's responsibility, not Association

History: No history reported

Comments: No changes from previous 2017 study.

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 751 Resident Managers Unit - Refurbish****Quantity: ~ 1,200 SF**

Location: Interior of managers unit, North end of building 8

Funded?: Yes.

History: 2015 - New carpet, vinyl tile, paint. Dryer vent/ceiling repair done. 2010 prior refurbishment

Comments: Inflated cost by 3% from previous 2017 study and reduced remaining useful life by 1 year.

Useful Life: 5 years

Remaining Life: 2 years

Best Case: \$ 4,300

Worst Case: \$6,600

Lower allowance

Higher allowance

Cost Source: ARI Cost Database: Similar Project

Cost History

**Comp #: 998 Association Annual Inspection****Quantity: Annual inspection**

Location: Common elements of association

Funded?: No. Annual costs, best handled in operational budget

History: No history reported

Comments: No changes from previous 2017 study.

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:

**Comp #: 999 Reserve Study - Update****Quantity: Annual update**

Location: Common areas of association

Funded?: No. Annual costs, best handled in operational budget

History: 2018, NSV completed in 2017. 2017, WSV completed in 2016. 2016 NSV completed in 2015

Comments: No changes from previous 2017 study.

Useful Life: 0 years

Remaining Life:

Best Case:

Worst Case:

Cost Source:



## Systems

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**Comp #: 900 Plumbing - Maintain/Repair****Quantity: Supply, drain systems**

Location: Throughout common areas of association  
Funded?: No. Useful life not predictable  
History: No history reported  
Comments: No changes from previous 2017 study.  
Useful Life: 0 years  
Best Case:  
Cost Source:

Remaining Life:  
Worst Case:

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**Comp #: 905 Electrical System - Maintain/Repair****Quantity: Main, branch systems**

Location: Throughout common areas of association  
Funded?: No. Useful life not predictable  
History: No history reported  
Comments: No changes from previous 2017 study.  
Useful Life: 0 years  
Best Case:  
Cost Source:

Remaining Life:  
Worst Case:

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**Comp #: 975 Utility Vehicle - Repair/Replace****Quantity: (1) Kubota RTV 900**

Location: Maintenance shed  
Funded?: Yes.  
History: No major projects known  
Comments: Reduced remaining useful life by 1 year from 2017 study, and increased costs about 3%  
Useful Life: 15 years  
Best Case: \$ 12,800  
Lower allowance  
Cost Source: ARI Cost Database: Similar Project  
Cost History

Remaining Life: 2 years  
Worst Case: \$17,000  
Higher allowance

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**Comp #: 985 Maintenance Equipment - Replace****Quantity: Extensive tools/equipment**

Location: Stored in maintenance shed  
Funded?: No. Annual costs, best handled in operational budget  
History: No history reported  
Comments: No change from previous 2017 study.  
Useful Life: 0 years  
Best Case:  
Cost Source:

Remaining Life:  
Worst Case:

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