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"Full" Reserve Study

Brighton East Farms M.A.

Brighton, CO

Report #: 31560-0
For Period Beginning: April 1, 2016
Expires: March 30, 2017

Date Prepared: December 8, 2016

BRYAN FARLEY
CAI-RS
00260
DESIGNATION
RESERVE SPECIALIST

Hello, and welcome to your Reserve Study!

We don't want you to be surprised. This Report is designed to help you anticipate, and prepare for, the major common area expenses your association will face. Inside you will find:

1) **<u>The Reserve Component List</u> (the "Scope and Schedule" of your Reserve projects) – telling you what your association is Reserving for, what condition they are in now, and what they'll cost to replace.**

2) **<u>An Evaluation of your current Reserve Fund Size and Strength</u> (Percent Funded). This tells you your financial starting point, revealing your risk of deferred maintenance and special assessments.**

3) **<u>A Recommended Multi-Year Reserve Funding Plan</u>, answering the question… "What do we do now?"**

More Questions?

Visit our website at <u>www.ReserveStudy.com</u> or call us at:

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ASSOCIATION RESERVES
Est. 1986

Table of Contents

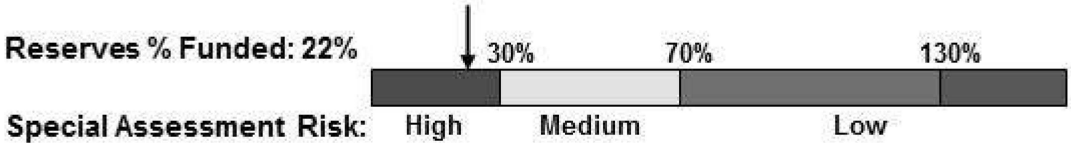
3- Minute Executive Summary

Association: Brighton East Farms M.A. **#: 31560-0**
Location: Brighton, CO **# of Units: 860**
Report Period: April 1, 2016 through March 30, 2017

Findings/Recommendations as-of 4/1/2016:

Projected Starting Reserve Balance: $60,649
Current Fully Funded Reserve Balance: $275,215
Average Reserve Deficit Per Unit: $249
Recommended 2016 Monthly "Full Funding" Contributions:.....$3,182
Alternate Minimum Contributions to keep Reserves above $0: $3,096
Recommended 2016 Special Assessment for Reserves: $0

Most Recent Budgeted Reserve Contribution Rate: $3,166



Economic Assumptions:

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

- **This is a "Full" Reserve Study (original, created "from scratch"), and is based on our site inspection on October 27, 2016. It was prepared by a credentialed Reserve Specialist (RS #260).**
- **Your Reserve Fund is currently 22% 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 increase your Reserve contributions in order to be within the 70% to 100% level as noted above. 100% "Full" contribution rates are designed to achieve these funding objectives *by the end of* our 30-year report scope. No assets appropriate for Reserve designation were excluded. See photo appendix for component details; the basis of our assumptions.**

Table 1: Executive Summary				31560-0
#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Cost Estimate
	Sites & Grounds			
2115	Concrete Walkways - Repair - 1%	1	0	$1,250
2155	Site Fencing: Wood - Replace (Ph 1)	25	9	$125,000
2155	Site Fencing: Wood - Replace (Ph 2)	25	11	$125,000
2155	Site Fencing: Wood - Replace (Ph 3)	25	13	$125,000
2157	3-Rail Wood Fence - Replace	25	9	$38,000
2159	3-Rail Vinyl Fence - Replace	30	14	$40,350
2181	Sign/Monument - Refurbish/Replace	30	14	$30,000
	Mechanical			
2577	Irrigation Pumps - Repair - 5%	4	3	$4,500
2579	Irrigation Clocks - Replace - 10%	2	1	$2,000
9	Total Funded Components			

Note 1: a Useful Life of “N/A” means a one-time expense, not expected to repeat.
Note 2: Yellow highlighted line items are expected to require attention in the initial year, green highlighted items are expected to occur within the first five years.

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 Full Reserve Study, we started with a review of your Governing Documents, recent Reserve expenditures, an evaluation of how expenditures are handled (ongoing maintenance vs Reserves), and research into any well-established association precedents. We performed an on-site inspection to quantify and evaluate your common areas, creating your Reserve Component List *from scratch*.

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 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*.

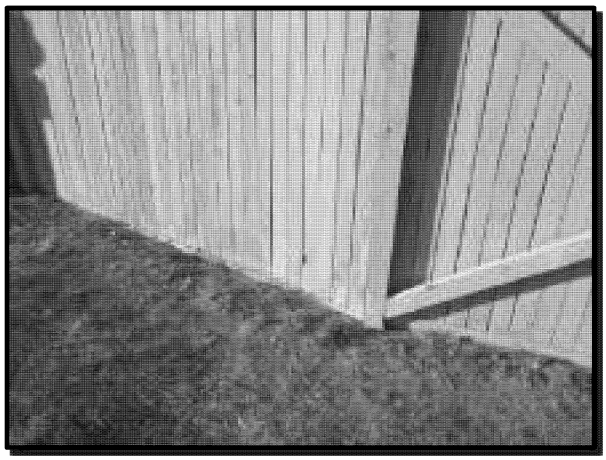
FUNDING OBJECTIVES

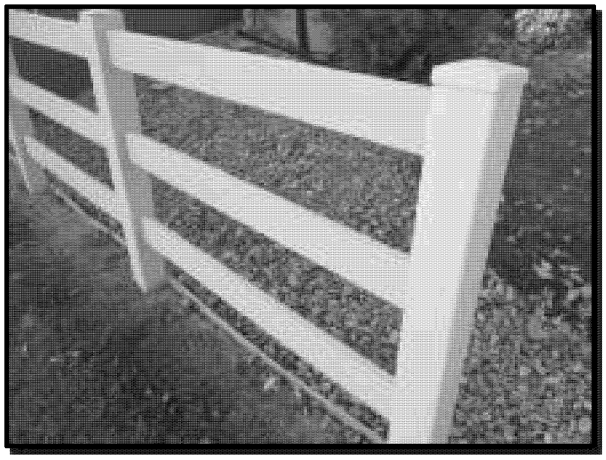
Allowing the Reserves to fall close to zero, but not below zero, is called Baseline Funding. Doing so allows the Reserve Fund to drop into the 0-30% range, where there is a high risk of special assessments & deferred maintenance. Since Baseline Funding still provides for the timely execution of all Reserve 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.

Site Inspection Notes

During our site visit on October 27, 2016, we started with a brief meeting with the board, and then started the site inspection beginning with the common grounds. We visually inspected the common areas.

Please see photo appendix for component details; the basis of our assumptions.





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. Your *first five years* of projected Reserve expenses total $15,799. Adding the next five years, your *first ten years* of projected Reserve expenses are $249,093. Please be aware of your near-term expenses, which we are able to project more accurately than the more distant projections.

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 Table 5, while details of the projects that make up these expenses are shown in Table 6.

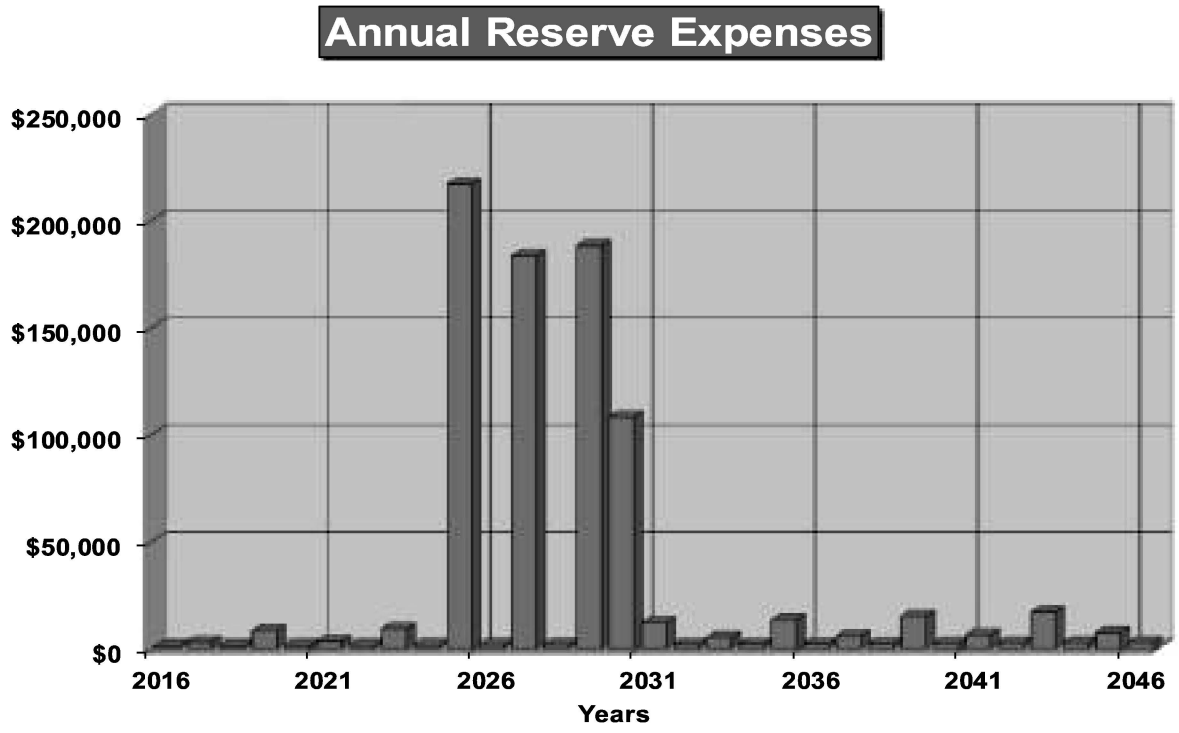


Figure 1

Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be $60,649 as-of the start of your Fiscal Year on April 1, 2016. As of April 1, 2016, your Fully Funded Balance is computed to be $275,215 (see Table 3). This figure represents the deteriorated value of your common area components. Comparing your Reserve Balance to your Fully Funded Balance indicates your Reserves are 22% Funded. Across the country, approx 35% of associations in this range experience special assessments or deferred maintenance.

Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of $3,182/month this Fiscal Year. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both Table 5 and Table 6.

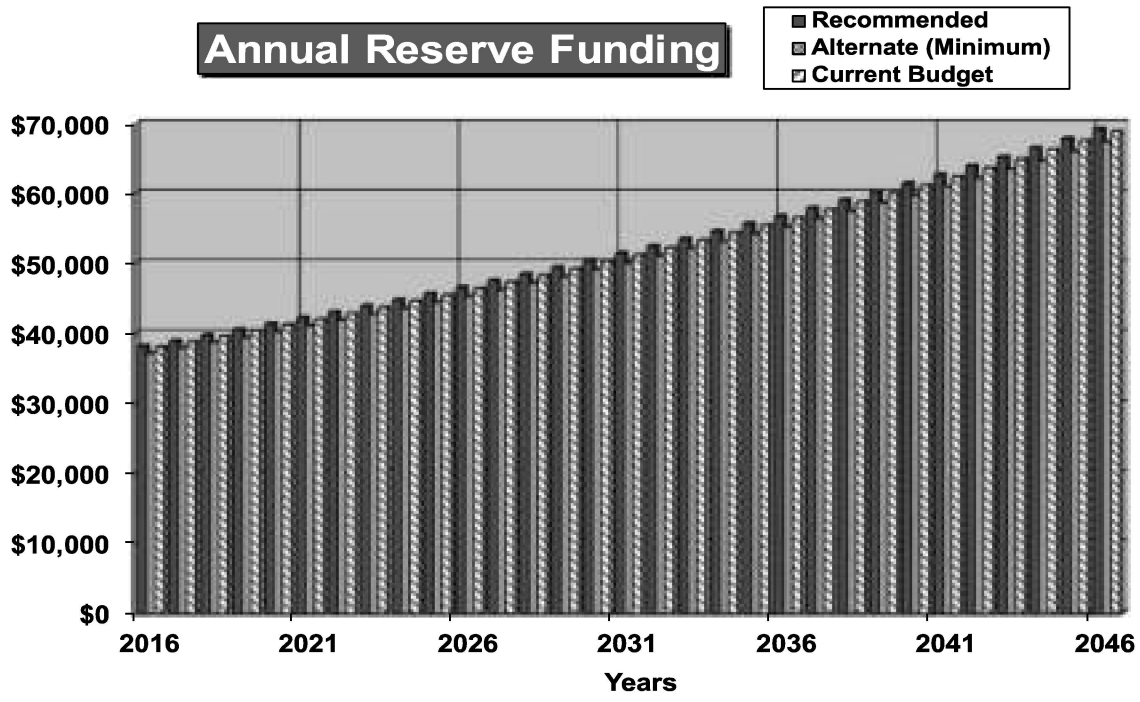


Figure 2

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, compared to your always-changing Fully Funded Balance target.

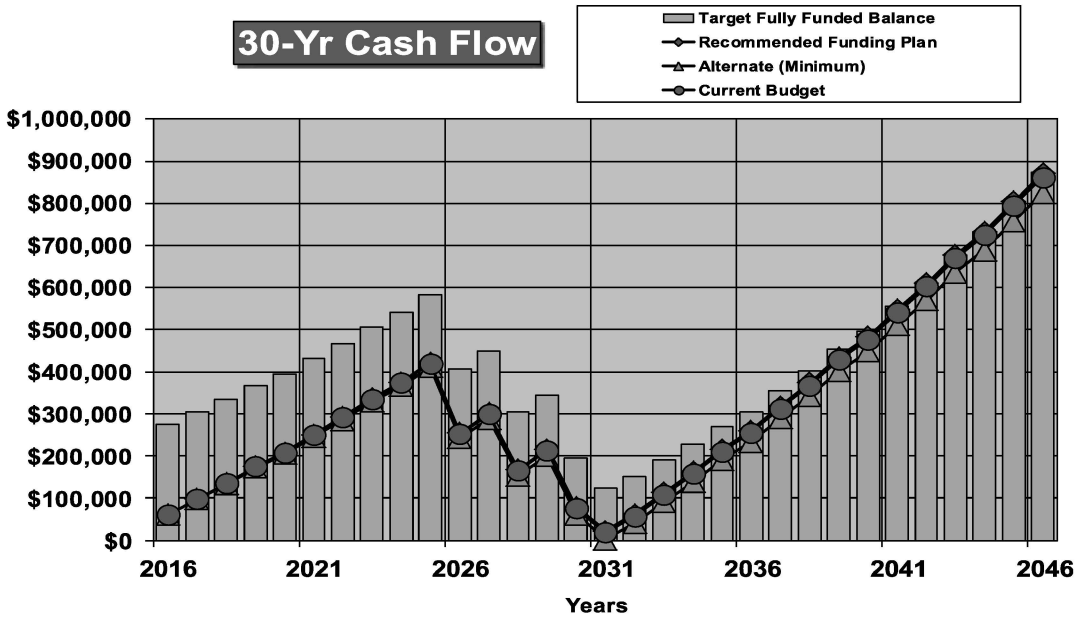


Figure 3

This figure shows this same information, plotted on a Percent Funded scale.

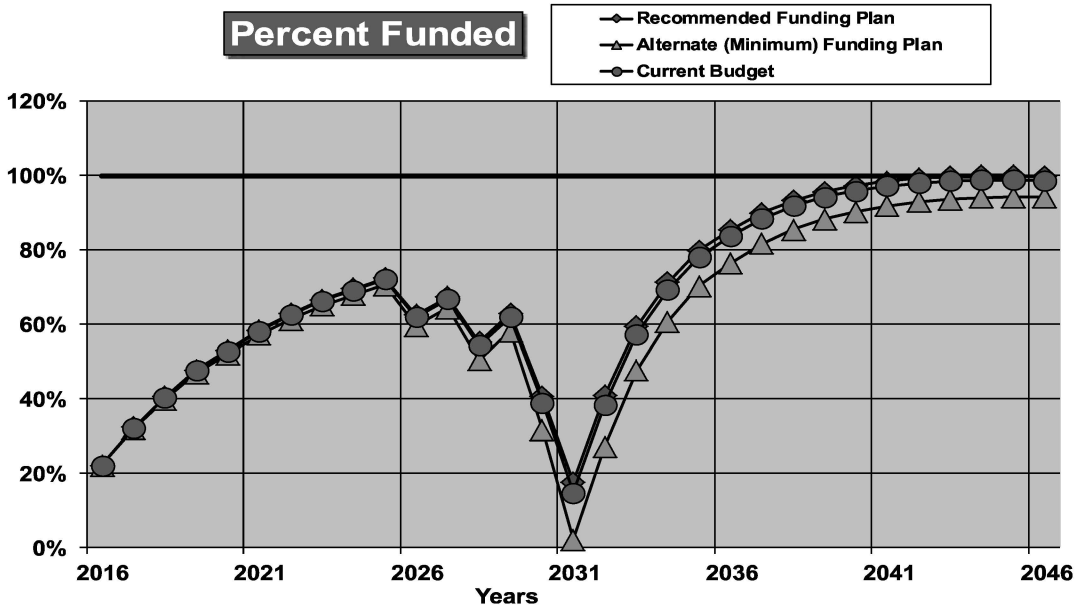


Figure 4

Table Descriptions

The tabular information in this Report is broken down into six tables.

Table 1 is a summary of your Reserve Components (your Reserve Component List), the information found in Table 2.

Table 2 is your Reserve Component List, which forms the foundation of this Reserve Study. This table represents the information from which all other tables are derived.

Table 3 shows the calculation of your Fully Funded Balance, the measure of your current Reserve component deterioration. For each component, the Fully Funded Balance is the fraction of life used up multiplied by its estimated Current Replacement Cost.

Table 4 shows the significance of each component to Reserve 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 Current Replacement Cost by Useful Life, then that component's percentage of the total is displayed.

Table 5: This table 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 for each year.

Table 6: This table shows the cash flow detail for the next 30 years. This table makes it possible to see which components are projected to require repair or replacement each year, and the size of those individual expenses.

Table 2: Reserve Component List Detail 31560-0

#	Component	Quantity	Useful Life	Rem. Useful Life	[— Current Cost Estimate —] Best Case	Worst Case
	Sites & Grounds					
2115	Concrete Walkways - Repair - 1%	1% of ~ 8,400 GSF	1	0	$1,000	$1,500
2155	Site Fencing: Wood - Replace (Ph 1)	33% of ~ 9,900 LF	25	9	$100,000	$150,000
2155	Site Fencing: Wood - Replace (Ph 2)	33% of ~ 9,900 LF	25	11	$100,000	$150,000
2155	Site Fencing: Wood - Replace (Ph 3)	33% of ~ 9,900 LF	25	13	$100,000	$150,000
2157	3-Rail Wood Fence - Replace	~ 1,900 LF	25	9	$34,200	$41,800
2159	3-Rail Vinyl Fence - Replace	~ 1,920 LF	30	14	$38,400	$42,300
2181	Sign/Monument - Refurbish/Replace	~ (6) Stone/Stucco	30	14	$24,000	$36,000
	Mechanical					
2577	Irrigation Pumps - Repair - 5%	5% of ~ (5) Pumps	4	3	$3,500	$5,500
2579	Irrigation Clocks - Replace - 10%	10% of ~ (12) Clocks	2	1	$1,500	$2,500
9	Total Funded Components					

Table 3: Fully Funded Balance 31560-0

#	Component	Current Cost Estimate		Effective Age		Useful Life		Fully Funded Balance
	Sites & Grounds							
2115	Concrete Walkways - Repair - 1%	$1,250	X	1	/	1	=	$1,250
2155	Site Fencing: Wood - Replace (Ph 1)	$125,000	X	16	/	25	=	$80,000
2155	Site Fencing: Wood - Replace (Ph 2)	$125,000	X	14	/	25	=	$70,000
2155	Site Fencing: Wood - Replace (Ph 3)	$125,000	X	12	/	25	=	$60,000
2157	3-Rail Wood Fence - Replace	$38,000	X	16	/	25	=	$24,320
2159	3-Rail Vinyl Fence - Replace	$40,350	X	16	/	30	=	$21,520
2181	Sign/Monument - Refurbish/Replace	$30,000	X	16	/	30	=	$16,000
	Mechanical							
2577	Irrigation Pumps - Repair - 5%	$4,500	X	1	/	4	=	$1,125
2579	Irrigation Clocks - Replace - 10%	$2,000	X	1	/	2	=	$1,000
								$275,215

Table 4: Component Significance 31560-0

#	Component	Useful Life	Current Cost Estimate	Deterioration Cost/yr	Deterioration Significance
	Sites & Grounds				
2115	Concrete Walkways - Repair - 1%	1	$1,250	$1,250	5.6%
2155	Site Fencing: Wood - Replace (Ph 1)	25	$125,000	$5,000	22.5%
2155	Site Fencing: Wood - Replace (Ph 2)	25	$125,000	$5,000	22.5%
2155	Site Fencing: Wood - Replace (Ph 3)	25	$125,000	$5,000	22.5%
2157	3-Rail Wood Fence - Replace	25	$38,000	$1,520	6.8%
2159	3-Rail Vinyl Fence - Replace	30	$40,350	$1,345	6.0%
2181	Sign/Monument - Refurbish/Replace	30	$30,000	$1,000	4.5%
	Mechanical				
2577	Irrigation Pumps - Repair - 5%	4	$4,500	$1,125	5.1%
2579	Irrigation Clocks - Replace - 10%	2	$2,000	$1,000	4.5%
9	Total Funded Components			$22,240	100.0%

Table 5: 30-Year Reserve Plan Summary 31560-0

Fiscal Year Start: 04/01/16

Interest:	1.0%	Inflation:	3.0%

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

Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	Reserve Contribs.	Loans or Special Assmts	Interest Income	Reserve Expenses
2016	$60,649	$275,215	22.0%	High	$38,184	$0	$795	$1,250
2017	$98,378	$305,091	32.2%	Med	$38,948	$0	$1,167	$3,348
2018	$135,145	$334,390	40.4%	Med	$39,727	$0	$1,551	$1,326
2019	$175,096	$367,358	47.7%	Med	$40,521	$0	$1,920	$8,469
2020	$209,069	$394,688	53.0%	Med	$41,332	$0	$2,301	$1,407
2021	$251,294	$430,862	58.3%	Med	$42,158	$0	$2,717	$3,768
2022	$292,402	$466,462	62.7%	Med	$43,001	$0	$3,146	$1,493
2023	$337,057	$506,271	66.6%	Med	$43,861	$0	$3,558	$9,532
2024	$374,945	$539,815	69.5%	Med	$44,739	$0	$3,983	$1,583
2025	$422,084	$583,397	72.3%	Low	$45,633	$0	$3,380	$216,919
2026	$254,179	$407,361	62.4%	Med	$46,546	$0	$2,779	$1,680
2027	$301,824	$448,637	67.3%	Med	$47,477	$0	$2,348	$183,757
2028	$167,891	$304,535	55.1%	Med	$48,427	$0	$1,921	$1,782
2029	$216,457	$344,496	62.8%	Med	$49,395	$0	$1,477	$188,339
2030	$78,989	$194,481	40.6%	Med	$50,383	$0	$503	$108,301
2031	$21,573	$123,414	17.5%	High	$51,391	$0	$414	$12,074
2032	$61,303	$150,369	40.8%	Med	$52,418	$0	$869	$2,006
2033	$112,585	$189,573	59.4%	Med	$53,467	$0	$1,373	$5,372
2034	$162,053	$227,590	71.2%	Low	$54,536	$0	$1,891	$2,128
2035	$216,352	$271,224	79.8%	Low	$55,627	$0	$2,385	$13,590
2036	$260,774	$305,531	85.4%	Low	$56,739	$0	$2,893	$2,258
2037	$318,149	$353,744	89.9%	Low	$57,874	$0	$3,456	$6,046
2038	$373,434	$400,743	93.2%	Low	$59,032	$0	$4,036	$2,395
2039	$434,106	$454,191	95.6%	Low	$60,212	$0	$4,587	$15,295
2040	$483,610	$497,272	97.3%	Low	$61,417	$0	$5,154	$2,541
2041	$547,640	$556,139	98.5%	Low	$62,645	$0	$5,782	$6,805
2042	$609,262	$613,777	99.3%	Low	$63,898	$0	$6,428	$2,696
2043	$676,892	$678,815	99.7%	Low	$65,176	$0	$7,041	$17,215
2044	$731,894	$732,331	99.9%	Low	$66,479	$0	$7,672	$2,860
2045	$803,185	$803,766	99.9%	Low	$67,809	$0	$8,371	$7,659

Table 6: 30-Year Income/Expense Detail (yrs 0 through 4) 31560-0

	Fiscal Year	2016	2017	2018	2019	2020
	Starting Reserve Balance	$60,649	$98,378	$135,145	$175,096	$209,069
	Annual Reserve Contribution	$38,184	$38,948	$39,727	$40,521	$41,332
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$795	$1,167	$1,551	$1,920	$2,301
	Total Income	$99,628	$138,493	$176,422	$217,537	$252,701
#	Component					
	Sites & Grounds					
2115	Concrete Walkways - Repair - 1%	$1,250	$1,288	$1,326	$1,366	$1,407
2155	Site Fencing: Wood - Replace (Ph 1)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 2)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 3)	$0	$0	$0	$0	$0
2157	3-Rail Wood Fence - Replace	$0	$0	$0	$0	$0
2159	3-Rail Vinyl Fence - Replace	$0	$0	$0	$0	$0
2181	Sign/Monument - Refurbish/Replace	$0	$0	$0	$0	$0
	Mechanical					
2577	Irrigation Pumps - Repair - 5%	$0	$0	$0	$4,917	$0
2579	Irrigation Clocks - Replace - 10%	$0	$2,060	$0	$2,185	$0
	Total Expenses	$1,250	$3,348	$1,326	$8,469	$1,407
	Ending Reserve Balance:	$98,378	$135,145	$175,096	$209,069	$251,294

Table 6: 30-Year Income/Expense Detail (yrs 5 through 9) 31560-0

	Fiscal Year	2021	2022	2023	2024	2025
	Starting Reserve Balance	$251,294	$292,402	$337,057	$374,945	$422,084
	Annual Reserve Contribution	$42,158	$43,001	$43,861	$44,739	$45,633
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$2,717	$3,146	$3,558	$3,983	$3,380
	Total Income	$296,170	$338,549	$384,477	$423,667	$471,097
#	Component					
	Sites & Grounds					
2115	Concrete Walkways - Repair - 1%	$1,449	$1,493	$1,537	$1,583	$1,631
2155	Site Fencing: Wood - Replace (Ph 1)	$0	$0	$0	$0	$163,097
2155	Site Fencing: Wood - Replace (Ph 2)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 3)	$0	$0	$0	$0	$0
2157	3-Rail Wood Fence - Replace	$0	$0	$0	$0	$49,581
2159	3-Rail Vinyl Fence - Replace	$0	$0	$0	$0	$0
2181	Sign/Monument - Refurbish/Replace	$0	$0	$0	$0	$0
	Mechanical					
2577	Irrigation Pumps - Repair - 5%	$0	$0	$5,534	$0	$0
2579	Irrigation Clocks - Replace - 10%	$2,319	$0	$2,460	$0	$2,610
	Total Expenses	$3,768	$1,493	$9,532	$1,583	$216,919
	Ending Reserve Balance:	$292,402	$337,057	$374,945	$422,084	$254,179

Table 6: 30-Year Income/Expense Detail (yrs 10 through 14) 31560-0

	Fiscal Year	2026	2027	2028	2029	2030
	Starting Reserve Balance	$254,179	$301,824	$167,891	$216,457	$78,989
	Annual Reserve Contribution	$46,546	$47,477	$48,427	$49,395	$50,383
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$2,779	$2,348	$1,921	$1,477	$503
	Total Income	$303,504	$351,648	$218,239	$267,328	$129,874
#	Component					
	Sites & Grounds					
2115	Concrete Walkways - Repair - 1%	$1,680	$1,730	$1,782	$1,836	$1,891
2155	Site Fencing: Wood - Replace (Ph 1)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 2)	$0	$173,029	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 3)	$0	$0	$0	$183,567	$0
2157	3-Rail Wood Fence - Replace	$0	$0	$0	$0	$0
2159	3-Rail Vinyl Fence - Replace	$0	$0	$0	$0	$61,033
2181	Sign/Monument - Refurbish/Replace	$0	$0	$0	$0	$45,378
	Mechanical					
2577	Irrigation Pumps - Repair - 5%	$0	$6,229	$0	$0	$0
2579	Irrigation Clocks - Replace - 10%	$0	$2,768	$0	$2,937	$0
	Total Expenses	$1,680	$183,757	$1,782	$188,339	$108,301
	Ending Reserve Balance:	$301,824	$167,891	$216,457	$78,989	$21,573

Table 6: 30-Year Income/Expense Detail (yrs 15 through 19) 31560-0

	Fiscal Year	2031	2032	2033	2034	2035
	Starting Reserve Balance	$21,573	$61,303	$112,585	$162,053	$216,352
	Annual Reserve Contribution	$51,391	$52,418	$53,467	$54,536	$55,627
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$414	$869	$1,373	$1,891	$2,385
	Total Income	$73,378	$114,591	$167,425	$218,480	$274,364
#	Component					
	Sites & Grounds					
2115	Concrete Walkways - Repair - 1%	$1,947	$2,006	$2,066	$2,128	$2,192
2155	Site Fencing: Wood - Replace (Ph 1)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 2)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 3)	$0	$0	$0	$0	$0
2157	3-Rail Wood Fence - Replace	$0	$0	$0	$0	$0
2159	3-Rail Vinyl Fence - Replace	$0	$0	$0	$0	$0
2181	Sign/Monument - Refurbish/Replace	$0	$0	$0	$0	$0
	Mechanical					
2577	Irrigation Pumps - Repair - 5%	$7,011	$0	$0	$0	$7,891
2579	Irrigation Clocks - Replace - 10%	$3,116	$0	$3,306	$0	$3,507
	Total Expenses	$12,074	$2,006	$5,372	$2,128	$13,590
	Ending Reserve Balance:	$61,303	$112,585	$162,053	$216,352	$260,774

Table 6: 30-Year Income/Expense Detail (yrs 20 through 24) 31560-0

	Fiscal Year	2036	2037	2038	2039	2040
	Starting Reserve Balance	$260,774	$318,149	$373,434	$434,106	$483,610
	Annual Reserve Contribution	$56,739	$57,874	$59,032	$60,212	$61,417
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$2,893	$3,456	$4,036	$4,587	$5,154
	Total Income	$320,407	$379,480	$436,501	$498,905	$550,181
#	Component					
	Sites & Grounds					
2115	Concrete Walkways - Repair - 1%	$2,258	$2,325	$2,395	$2,467	$2,541
2155	Site Fencing: Wood - Replace (Ph 1)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 2)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 3)	$0	$0	$0	$0	$0
2157	3-Rail Wood Fence - Replace	$0	$0	$0	$0	$0
2159	3-Rail Vinyl Fence - Replace	$0	$0	$0	$0	$0
2181	Sign/Monument - Refurbish/Replace	$0	$0	$0	$0	$0
	Mechanical					
2577	Irrigation Pumps - Repair - 5%	$0	$0	$0	$8,881	$0
2579	Irrigation Clocks - Replace - 10%	$0	$3,721	$0	$3,947	$0
	Total Expenses	$2,258	$6,046	$2,395	$15,295	$2,541
	Ending Reserve Balance:	$318,149	$373,434	$434,106	$483,610	$547,640

Table 6: 30-Year Income/Expense Detail (yrs 25 through 29) 31560-0

	Fiscal Year	2041	2042	2043	2044	2045
	Starting Reserve Balance	$547,640	$609,262	$676,892	$731,894	$803,185
	Annual Reserve Contribution	$62,645	$63,898	$65,176	$66,479	$67,809
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$5,782	$6,428	$7,041	$7,672	$8,371
	Total Income	$616,067	$679,588	$749,109	$806,045	$879,365
#	Component					
	Sites & Grounds					
2115	Concrete Walkways - Repair - 1%	$2,617	$2,696	$2,777	$2,860	$2,946
2155	Site Fencing: Wood - Replace (Ph 1)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 2)	$0	$0	$0	$0	$0
2155	Site Fencing: Wood - Replace (Ph 3)	$0	$0	$0	$0	$0
2157	3-Rail Wood Fence - Replace	$0	$0	$0	$0	$0
2159	3-Rail Vinyl Fence - Replace	$0	$0	$0	$0	$0
2181	Sign/Monument - Refurbish/Replace	$0	$0	$0	$0	$0
	Mechanical					
2577	Irrigation Pumps - Repair - 5%	$0	$0	$9,996	$0	$0
2579	Irrigation Clocks - Replace - 10%	$4,188	$0	$4,443	$0	$4,713
	Total Expenses	$6,805	$2,696	$17,215	$2,860	$7,659
	Ending Reserve Balance:	$609,262	$676,892	$731,894	$803,185	$871,706

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 CO, LLC and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. Bryan Farley R.S., company president, is a credentialed Reserve Specialist (#260). All work done by Association Reserves CO, 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.

Component quantities indicated in this Report were developed by Association Reserves unless otherwise noted. No destructive or intrusive testing was performed. This Report and this site inspection were accomplished only for Reserve budget purposes (to help identify and address the normal deterioration of properly built and installed components with predictable life expectancies). The Funding Plan in this Report was developed using the cash-flow methodology to achieve the specified Funding Objective.

Association Reserves' liability in any matter involving this Reserve Study is limited to our Fee for services rendered.

Terms and Definitions

BTU	British Thermal Unit (a standard unit of energy)
DIA	Diameter
GSF	Gross Square Feet (area). Equivalent to Square Feet
GSY	Gross Square Yards (area). Equivalent to Square Yards
HP	Horsepower
LF	Linear Feet (length)

Effective Age: The difference between Useful Life and Remaining Useful Life. Note that this is not necessarily equivalent to the chronological age of the component.

Fully Funded Balance (FFB): 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.

FFB = (Current Cost X Effective Age) / Useful Life

Inflation: 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 Table 6.

Interest: 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.

Percent Funded: 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.

Remaining Useful Life (RUL): The estimated time, in years, that a common area component can be expected to continue to serve its intended function.

Useful Life (UL): 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 photographic appendix is to provide the reader with the basis of our funding assumptions resulting from our physical analysis and subsequent research. The photographs herein represent a wide range of elements that were observed and measured against National Reserve Study Standards to determine if they meet the criteria for reserve funding.

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

Some components are recommended for reserve funding, while others are not. The components that meet these criteria in our judgment are shown with corresponding maintenance, repair or replacement cycles to the left of the photo (UL = Useful Life or how often the project is expected to occur, RUL = Remaining Useful Life or how many years from our reporting period) and a representative market cost range termed "Best Cost" and "Worst Cost" below the photo. There are many factors that can result in a wide variety of potential costs, we are attempting to represent a market average for budget purposes. Where there is no UL, the component is expected to be a one-time expense. Where no pricing, the component deemed inappropriate for Reserve Funding.

Component Details

Sites / Grounds

Comp #: **2115 Concrete Walkways - Repair - 1%** **Quantity:** **1% of ~ 8,400 GSF**
Location: Common areas
Funded?: Yes.
History:
Evaluation: No major issues were observed at the time of the inspection. Colorado is home to expansive soils. One of the causes of concrete damage in this type of soil moisture. Expansive soils tend to swell in size when wet and contract as they dry out. As the soil expands and contracts it can create enough force to cause major damage to sidewalks. Repair any trip and fall hazards immediately to ensure safety. As routine maintenance, inspect regularly, pressure wash for appearance and repair promptly as needed to prevent water penetrating into the base and causing further damage. In our experience, larger repair/replacement expenses emerge as the community ages. Although difficult to predict timing, cost and scope, we suggest a rotating funding allowance to supplement the operating/maintenance budget for periodic larger repairs. Adjust as conditions, actual expense patterns dictate within future reserve study updates.

Useful Life:
1 years

Remaining Life:
0 years

Best Case: $ 1,000
Lower allowance

Worst Case: $ 1,500
Higher allowance

Cost Source: Allowance

Comp #: **2151 Site Fencing: Wood - Repair/Paint** **Quantity:** **~ 9,900 LF**

Location: Common areas

Funded?: No. Client will leave fence unfinished

History:

Evaluation: The finish on the wood fence appeared in generally poor condition. Reported that the fences have not been sealed or stained.
Regular sealer applications are recommended for the appearance, protection, and maximum useful life of the wood. Actual timing of staining will vary based on exposure and quality of material and application. In our experience, quality solid-bodied stain typically produces best result. Remove any unnecessary contact with ground and surrounding landscape and sprinkler patterns. Repair as needed and clean prior to sealer application.

There are three general options for finishing wood fences. The first and least expensive option is to leave it unfinished. The second option is regular cycles of penetrating water repellent (typically clear or semi-transparent). The third option is painting or staining. The first option typically has a shorter useful life and perhaps a lower life-cycle cost than staining/painting. Left unfinished, the wood will “gray” from its exposure to weather - the lesser appearance may adversely affect marketability however. The second option to apply a penetrating stain is similar to painting, in that it will extend the life of the wood fence. The costs for applying the penetrating water repellent can be much less than staining, but needs to be done more often (every two to three years).

Client does not anticipate staining or sealing the fence therefore no funding has been provided.

Useful Life:

Remaining Life:

Best Case: Worst Case:

Cost Source:

Comp #: **2155 Site Fencing: Wood - Replace (Ph 1)** **Quantity:** **33% of ~ 9,900 LF**

Location: Common areas

Funded?: Yes.

History:

Evaluation: 6' privacy fence. Minor breakage and leaning of the fences noted in local areas. As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground and surrounding vegetation wherever possible. Regular cycles of uniform, professional sealing/painting will help to maintain appearance and maximize life. Plan to replace at roughly the time frame below with funding included here for similar wood replacement. At next replacement, association might want to consider replacing with more sturdy, lower-maintenance products like composite, vinyl, etc. Although installation costs are higher, total life cycle cost is lower due to less maintenance and longer design life expectancy.

Useful Life:
25 years

Remaining Life:
9 years

Best Case: $ 100,000
Lower allowance

Worst Case: $ 150,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: **2155 Site Fencing: Wood - Replace (Ph 2)** **Quantity:** **33% of ~ 9,900 LF**

Location: Common areas

Funded?: Yes.

History:

Evaluation: 6' privacy fence. Minor breakage and leaning of the fences noted in local areas. As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground and surrounding vegetation wherever possible. Regular cycles of uniform, professional sealing/painting will help to maintain appearance and maximize life. Plan to replace at roughly the time frame below with funding included here for similar wood replacement. At next replacement, association might want to consider replacing with more sturdy, lower-maintenance products like composite, vinyl, etc. Although installation costs are higher, total life cycle cost is lower due to less maintenance and longer design life expectancy.

Useful Life:
25 years

Remaining Life:
11 years

Best Case: $ 100,000
Lower allowance

Worst Case: $ 150,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: **2155 Site Fencing: Wood - Replace (Ph 3)** **Quantity:** **33% of ~ 9,900 LF**

Location: Common areas

Funded?: Yes.

History:

Evaluation: 6' privacy fence. Minor breakage and leaning of the fences noted in local areas. As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground and surrounding vegetation wherever possible. Regular cycles of uniform, professional sealing/painting will help to maintain appearance and maximize life. Plan to replace at roughly the time frame below with funding included here for similar wood replacement. At next replacement, association might want to consider replacing with more sturdy, lower-maintenance products like composite, vinyl, etc. Although installation costs are higher, total life cycle cost is lower due to less maintenance and longer design life expectancy.

Useful Life:
25 years

Remaining Life:
13 years

Best Case: $ 100,000
Lower allowance

Worst Case: $ 150,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: **2157 3-Rail Wood Fence - Replace** **Quantity: ~ 1,900 LF**

Location: Western perimeter

Funded?: Yes.

History:

Evaluation: No major issues were noted. As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground and surrounding vegetation wherever possible. Regular cycles of uniform, professional sealing/painting will help to maintain appearance and maximize life. Plan to replace at roughly the time frame below with funding included here for similar wood replacement. At next replacement, association might want to consider replacing with more sturdy, lower-maintenance products like composite, vinyl, etc. Although installation costs are higher, total life cycle cost is lower due to less maintenance and longer design life expectancy.

Useful Life:
25 years

Remaining Life:
9 years

Best Case: $ 34,200
Lower allowance

Worst Case: $ 41,800
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: **2159 3-Rail Vinyl Fence - Replace** **Quantity:** **~ 1,920 LF**
Location: Common areas
Funded?: Yes.
History:
Evaluation: Three rail fence. No major issues were reported or noted. No broken rails noted. As routine maintenance, inspect regularly for any damage and repair as needed from Operating budget; clean as general maintenance item or along with larger building projects, not as separate Reserve item. Even with proactive maintenance, plan to replace at roughly the time frame below due to damage/deterioration that will result from constant exposure.

Useful Life:
30 years

Remaining Life:
14 years

Best Case: $ 38,400
Lower allowance

Worst Case: $ 42,300
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: **2165 Retaining Walls - Repair** **Quantity:** **Numerous LF**
Location: Common areas
Funded?: No. Unpredictable scope
History:
Evaluation: No significant or widespread cracking, settling or other problems observed. Assumed to have been properly designed and installed with adequate base and surrounding drainage. Inspect regularly, repair as needed from Operating budget. If shifting, cracking, etc. are observed, consult with civil or geotechnical engineer for repair scope. At this time, no expectation of large scale repairs or replacement; no Reserve funding recommended. An allowance for partial repairs/replacements may be added during future Reserve Study updates if warranted by association history.

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

Comp #: **2168 Stone Columns - Repair** **Quantity:** **Numerous Columns**

Location: Common areas

Funded?: No. Repair as needed

History:

Evaluation: No significant or widespread cracking, settling or other problems observed. Assumed to have been properly designed and installed with adequate base and surrounding drainage. Inspect regularly, repair as needed from Operating budget. If shifting, cracking, etc. are observed, consult with civil or geotechnical engineer for repair scope. At this time, no expectation of large scale repairs or replacement; no Reserve funding recommended. An allowance for partial repairs/replacements may be added during future Reserve Study updates if warranted by association history.

Useful Life:

Remaining Life:

Best Case: Worst Case:

Cost Source:

Comp #: **2181 Sign/Monument - Refurbish/Replace** **Quantity:** **~ (6) Stone/Stucco**

Location: Entry

Funded?: Yes.

History:

Evaluation: Good, legible condition with no significant damage/deterioration noted. Minor cracking observed on the stucco, but no major issues seen. Funding allowance here can vary significantly depending on style/type desired. Inspect regularly, clean for appearance and repair as needed from general Operating funds. Best to plan for regular intervals of complete replacement at the time frame indicated below, to maintain functionality and a quality appearance as located in highly exposed areas. When replacement pieces are being evaluated, the association should place additional value on materials that require less maintenance, such as metal, stone, or a composite material.

Useful Life:
30 years

Remaining Life:
14 years

Best Case: $ 24,000
Lower allowance

Worst Case: $ 36,000
Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: **2195 Landscaping/Trees - Refurbish** **Quantity:** **Landscaping**

Location: Common areas

Funded?: No. Reported to be an operating expense

History:

Evaluation: No specific problems observed by site inspector or identified by association contact. Although typically funded as ongoing maintenance item, this component may be utilized for setting aside funds for larger expenses that do not occur on an annual basis, such as large scale plantings, resodding lawn areas, bark/mulch replenishment, etc. Often times these type of projects can be handled within the annual operating budget as a separate line item from the landscape maintenance contract. At this time, there is no reported expectation for major projects requiring Reserve funding. Monitor and include funding in Reserve Study updates if needed.

Useful Life:

Remaining Life:

Best Case: Worst Case:

Cost Source:

Comp #: **2197 Ponds - Maintain** **Quantity:** **(4) Ponds**

Location: Common areas

Funded?: No. Unpredictable scope

History:

Evaluation: Reported that there are (3) detention ponds and (1) retention pond. Under normal circumstances, well-maintained retention ponds should not require major repair/refurbishing projects. In some cases, large projects such as erosion control, weed abatement or dredging may be required, but the scope and frequency of such projects is very unpredictable. The association should consult with pond service vendor on a regular basis to identify any necessary projects, which may be included within future Reserve Study updates as needed.

Useful Life:

Remaining Life:

Best Case: Worst Case:

Cost Source:

Comp #: **2577 Irrigation Pumps - Repair - 5%** **Quantity:** **5% of ~ (5) Pumps**
Location: Adjacent to controllers
Funded?: Yes.
History:
Evaluation: The pumps include: (1) 3" Febco 880V, (1) 3/4" Febco 825YA, (1) 1" Febco 825YA, (2) 3" Wilkins 475. Irrigation pumps and motors can often be repaired or rebuilt rather than completely replaced. Small component repairs should be considered an Operating expense. Pumps and motors need to be serviced regularly by landscaping/irrigation vendor or other maintenance personnel to ensure proper function.

Vendor reported that there is no expectation for completed failure of the pumps and pump components, but rather the client will be able to replace components partially when replacement is needed. An allowance has been provided below for pump repair and replacement.

Useful Life:
4 years

Remaining Life:
3 years

Best Case: $ 3,500
Lower allowance

Worst Case: $ 5,500
Higher allowance

Cost Source: Research with Local Vendor/Contractor

Comp #: **2579 Irrigation Clocks - Replace - 10%** **Quantity:** **10% of ~ (12) Clocks**
Location: Common areas
Funded?: Yes.
History:
Evaluation: Reported that (1) clock was replaced in 2016, but the rest of the controllers are original. (10) of the clocks are 48 stations and (2) of the clocks are 15 stations. Irrigation controllers should have a relatively long life expectancy under normal circumstances. Replacement is often required due to lack of available replacement parts as opposed to complete failure. Exposure to the elements can affect overall life expectancy, and controllers should be located in protected areas or within metal enclosures whenever possible. When evaluating replacement options, the association should consider replacement with weather-sensitive models to minimize unnecessary water usage. Payback period for efficient controllers that minimize water use is typically very short, easily justifying the additional costs of these options.

Useful Life:
2 years

Remaining Life:
1 years

Best Case: $ 1,500
Lower allowance

Worst Case: $ 2,500
Higher allowance

Cost Source: Allowance

Comp #: **2583 Backflow Devices - Replace** **Quantity:** **~ (2) Devices**
Location:
Funded?: No.
History:
Evaluation: Devices were covered. The devices were not tested at the time if the inspection. As routine maintenance, inspect regularly, test system and repair as needed from Operating budget. If the devices are installed correctly, there is no predictable replacement timeframe. Plan to replace the units as needed.

Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:
