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Twenty Four
Carbondale, CO

BRYAN FARLEY CAI-RS 00260 DESIGNATION RESERVE SPECIALIST

Report #: 21306-1
Beginning: January 1, 2023
Expires: December 31, 2023

RESERVE STUDY
Update "With-Site-Visit"

March 15, 2023

Welcome to your Reserve Study!

A Reserve Study is a valuable tool to help you budget responsibly for your property. This report contains all the information you need to avoid surprise expenses, make informed decisions, save money, and protect property values.

Regardless of the property type, it's a fact of life that the very moment construction is completed, every major building component begins a predictable process of physical deterioration. The operative word is " predictable" because planning for the inevitable is what a Reserve Study by **Association Reserves** is all about!

In this Report, you will find three key results:

- **Component List**
  Unique to each property, the Component List serves as the foundation of the Reserve Study and details the scope and schedule of all necessary repairs & replacements.
- **Reserve Fund Strength**
  A calculation that measures how well the Reserve Fund has kept pace with the property's physical deterioration.
- **Reserve Funding Plan**
  A multi-year funding plan based on current Reserve Fund strength that allows for component repairs and replacements to be completed in a timely manner, with an emphasis on fairness and avoiding "catch-up" funding.

Questions?

Please contact your Project Manager directly.

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Reserve Study Executive Summary — With-Site-Visit

Twenty Four -
Carbondale, CO
Level of Service: **Update "With-Site-Visit"**

Report #: **21306-1**
# of Units: 6
January 1, 2023 through **December 31, 2023**

Findings & Recommendations — as of January 1, 2023

Starting Reserve Balance	**$195,428**
Fully Funded Reserve Balance	**$845,477**
Annual Rate (Cost) of Deterioration	**$147,057**
Percent Funded	**23.1 %**
Recommended 2023 Monthly "Fully Funding" Contributions	**$16,000**
Alternate/Baseline Monthly Minimum Contributions to Keep Reserves Above $0	**$9,500**
Recommended 2023 Special Assessments for Reserves	**$0**
Most Recent Monthly Reserve Contribution Rate	**$4,167**

Reserve Fund Strength: 23.1%

Weak	Fair	Strong
< 30%	< 70%	> 130%
X		

Risk of Special Assessment: High | Medium | Low

Economic Assumptions:

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

• This Update "With-Site-Visit", is based on a prior Reserve Study for your 2010 Fiscal Year. We performed the site inspection on 3/1/2023.
• The Reserve Study was reviewed by a credentialed Reserve Specialist (RS).
• Your Reserve Fund is currently 23.1 % Funded. This means the client's special assessment & deferred maintenance risk is currently High.
• Based on this starting point and your anticipated future expenses, our recommendation is to budget the Monthly Reserve contributions at $16,000 with 3% annual increases in order to be within the 70% to 130% level as noted above. 100% "Full" contribution rates are designed to achieve these funding objectives by the end of our 30-year report scope.
• The goal of the Reserve Study is to help the client offset inevitable annual deterioration of the common area components. The Reserve Study will guide the client to establish an appropriate Reserve Contribution rate that offsets the annual deterioration of the components and 'keep pace' with the rate of ongoing deterioration. No assets appropriate for Reserve designation were excluded. See appendix for component details; the basis of our assumptions.
• We recommend that this Reserve Study be updated annually, with a With-Site-Visit Reserve Study every three years. Clients that update their Reserve Study annually with a No-Site-Visit Reserve Study reduce their risk of special assessment by ~ 35%.
• Please watch this 5-minute video to understand the key results of a Reserve Study - https://youtu.be/u83t4BRRIRE

Executive Summary Table

Report # 21306-1
With-Site-Visit

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost
	Sites and Grounds			
21090	Conc. Walks & Drives - Repair - 5%	5	3	$9,400
21190	Asphalt - Seal/Repair	3	0	$17,400
21200	Asphalt - Resurface	20	0	$52,300
	Building Exteriors			
23020	Ext. Lights - Replace	25	12	$31,500
23190	Wood Deck - Seal/Repair	4	2	$5,700
23200	Wood Deck - Resurface	25	12	$36,700
23220	Balcony Rails - Paint	5	3	$19,100
23230	Balcony Rails - Replace	30	17	$35,000
23310	Wood Siding – Repair/Repaint	5	2	$258,650
23320	Wood Siding - Replace	50	44	$1,681,250
23570	Roof: Composition Shingle - Replace	20	14	$369,950
23600	Roof: Metal - Replace	40	34	$179,450
23640	Roof: Wood Shingle - Replace	20	7	$260,000
23650	Gutters/Downspouts - Replace	30	23	$31,900
23660	Heat Tape - Replace	10	2	$47,900
	Mechanicals			
25570	Irrigation Clocks - Replace	15	12	$6,450
16	**Total Funded Components**			

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 With-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 performed an on-site inspection to evaluate your common areas, updating and adjusting your Reserve Component List as appropriate.

Which Physical Assets are Funded by Reserves?

RESERVE COMPONENT "FOUR-PART TEST"

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?

FUNDING OBJECTIVES

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.*

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 3/1/2023 we visually inspected the common area assets and were able to see a majority of 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. 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 as defined by your Reserve Component List. A summary of these expenses are shown in the 30-Year Reserve Plan Summary Table, while details of the projects that make up these expenses are shown in the 30-Year Income/Expense Detail.

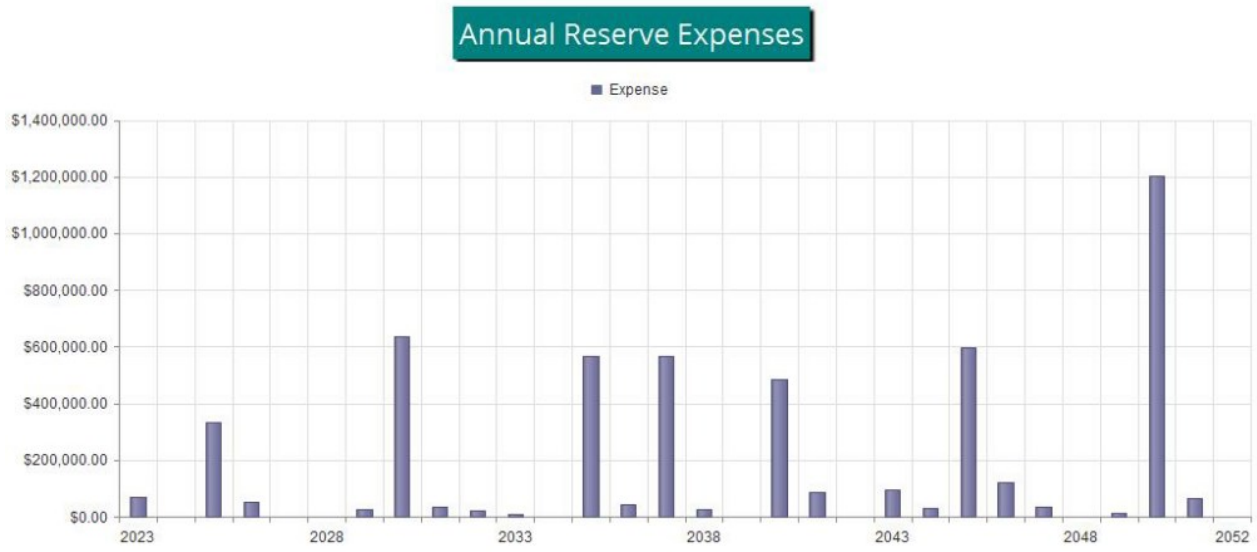


Figure 1

Reserve Fund Status

As of 1/1/2023 your Reserve Fund balance is projected to be $195,428 and your Fully Funded Balance is computed to be $845,477 (see the Fully Funded Balance Table). The Fully Funded Balance represents the deteriorated value of your common area components. Comparing your Reserve Balance to your Fully Funded Balance indicates your Reserves are 23.1 % Funded.

Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending Monthly budgeted contributions of $16,000. The overall 30-Year Plan, in perspective, is shown below in the Annual Reserve Funding (Fig. 2). This same information is shown numerically in both the 30-Year Reserve Plan Summary Table and the 30-Year Income/Expense Detail.

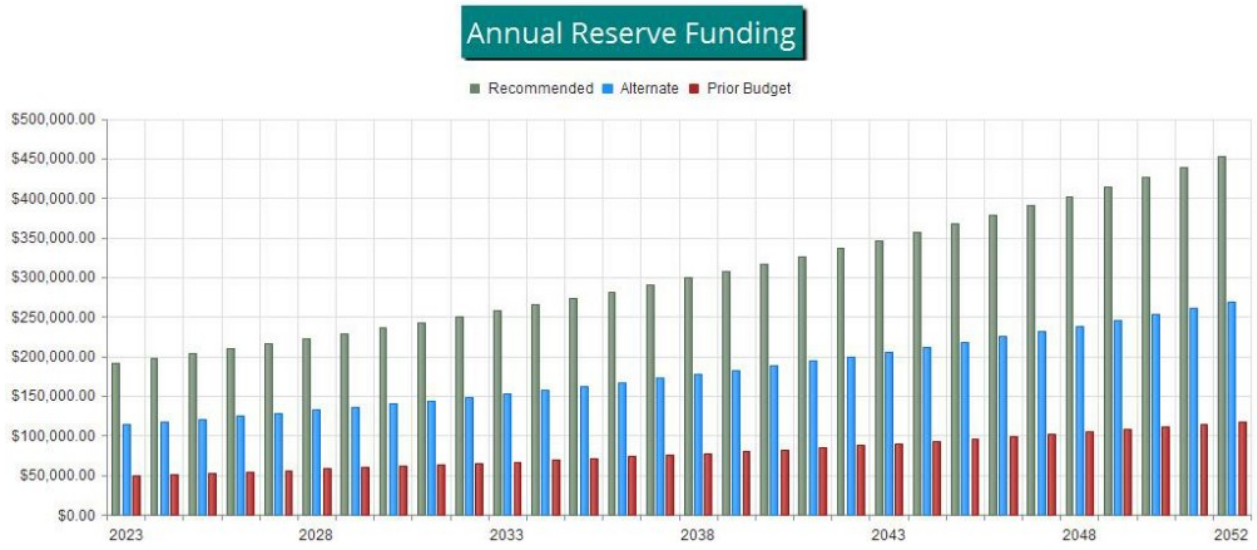


Figure 2

The 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 is shown in the 30-Yr Cash Flow (Fig. 3).

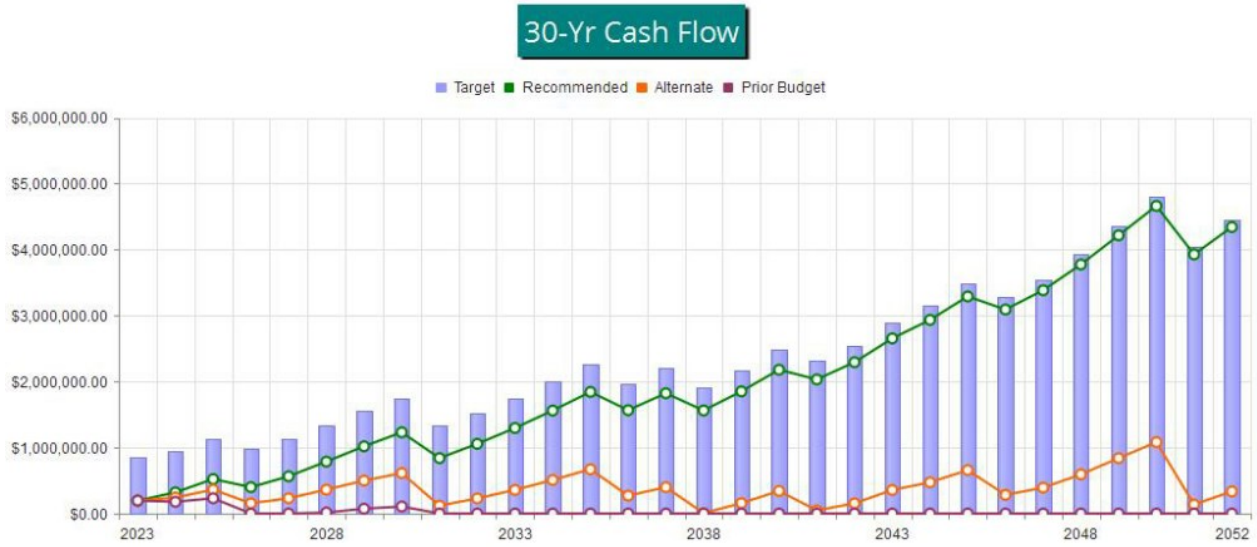


Figure 3

The information from Figure 3 is plotted on a Percent Funded scale in Figure 4. It is clear here to see how your Reserve Fund strength approaches the 100% Funded level under our recommended multi-yr Funding Plan.
A client that has a percent funded level of <30% may experience an ~ 20%-60% chance risk of special assessment. A client that is between 30% and 70% may experience an ~ 20%-5% chance risk of special assessment. A client that has a percent funded of >70% may experience an ~ <1% chance risk of special assessment.

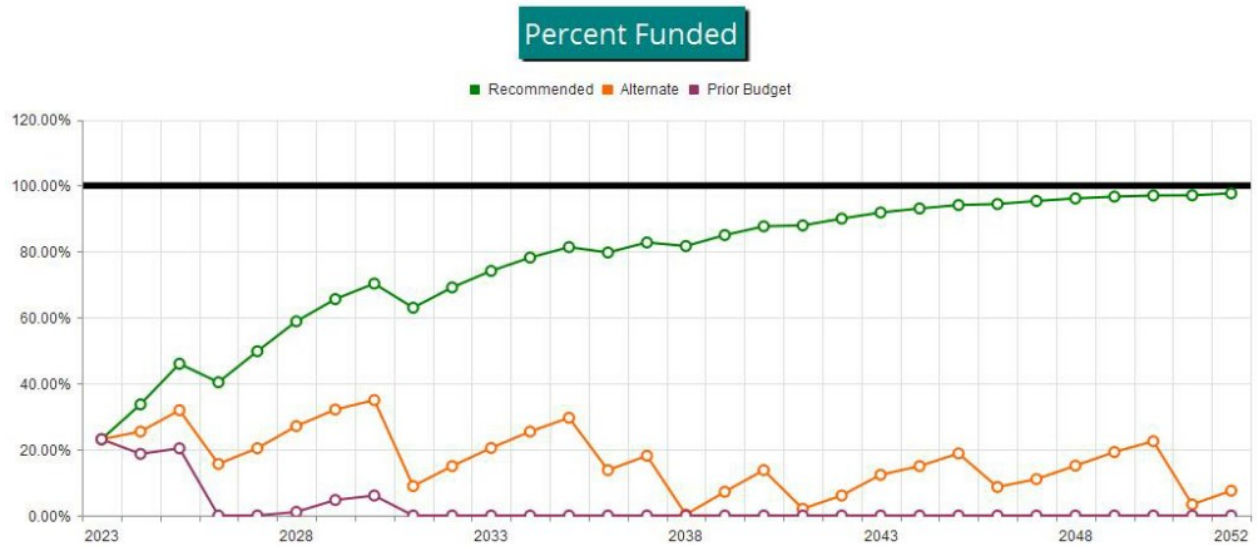


Figure 4

Table Descriptions

Executive Summary is a summary of your Reserve Components

Reserve 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 property 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 property, 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.

30-Yr Reserve Plan 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.

30-Year Income/Expense 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.

#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate	
					Best Case	Worst Case
	Sites and Grounds					
21090	Conc. Walks & Drives - Repair - 5%	5% of ~ 15100 GSF	5	3	$7,500	$11,300
21190	Asphalt - Seal/Repair	~ 11600 GSF	3	0	$11,600	$23,200
21200	Asphalt - Resurface	~ 11600 GSF	20	0	$46,500	$58,100
	Building Exteriors					
23020	Ext. Lights - Replace	~ (130) Lights	25	12	$25,200	$37,800
23190	Wood Deck - Seal/Repair	~ 1600 GSF	4	2	$4,900	$6,500
23200	Wood Deck - Resurface	~ 1600 GSF	25	12	$32,600	$40,800
23220	Balcony Rails - Paint	~ 640 LF	5	3	$15,900	$22,300
23230	Balcony Rails - Replace	~ 640 LF	30	17	$31,800	$38,200
23310	Wood Siding – Repair/Repaint	~ 64700 GSF	5	2	$194,000	$323,300
23320	Wood Siding - Replace	~ 64700 GSF	50	44	$1,422,600	$1,939,900
23570	Roof: Composition Shingle - Replace	~ 26400 GSF	20	14	$317,100	$422,800
23600	Roof: Metal - Replace	~ 7600 GSF	40	34	$168,000	$190,900
23640	Roof: Wood Shingle - Replace	~ 14900 GSF	20	7	$230,000	$290,000
23650	Gutters/Downspouts - Replace	~ 2700 LF	30	23	$26,600	$37,200
23660	Heat Tape - Replace	~ 2700 LF	10	2	$42,600	$53,200
	Mechanicals					
25570	Irrigation Clocks - Replace	~ (3) Controllers	15	12	$6,000	$6,900

16 Total Funded Components

#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
	Sites and Grounds							
21090	Conc. Walks & Drives - Repair - 5%	$9,400	X	2	/	5	=	$3,760
21190	Asphalt - Seal/Repair	$17,400	X	3	/	3	=	$17,400
21200	Asphalt - Resurface	$52,300	X	20	/	20	=	$52,300
	Building Exteriors							
23020	Ext. Lights - Replace	$31,500	X	13	/	25	=	$16,380
23190	Wood Deck - Seal/Repair	$5,700	X	2	/	4	=	$2,850
23200	Wood Deck - Resurface	$36,700	X	13	/	25	=	$19,084
23220	Balcony Rails - Paint	$19,100	X	2	/	5	=	$7,640
23230	Balcony Rails - Replace	$35,000	X	13	/	30	=	$15,167
23310	Wood Siding – Repair/Repaint	$258,650	X	3	/	5	=	$155,190
23320	Wood Siding - Replace	$1,681,250	X	6	/	50	=	$201,750
23570	Roof: Composition Shingle - Replace	$369,950	X	6	/	20	=	$110,985
23600	Roof: Metal - Replace	$179,450	X	6	/	40	=	$26,918
23640	Roof: Wood Shingle - Replace	$260,000	X	13	/	20	=	$169,000
23650	Gutters/Downspouts - Replace	$31,900	X	7	/	30	=	$7,443
23660	Heat Tape - Replace	$47,900	X	8	/	10	=	$38,320
	Mechanicals							
25570	Irrigation Clocks - Replace	$6,450	X	3	/	15	=	$1,290
								$845,477

#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
	Sites and Grounds				
21090	Conc. Walks & Drives - Repair - 5%	5	$9,400	$1,880	1.28 %
21190	Asphalt - Seal/Repair	3	$17,400	$5,800	3.94 %
21200	Asphalt - Resurface	20	$52,300	$2,615	1.78 %
	Building Exteriors				
23020	Ext. Lights - Replace	25	$31,500	$1,260	0.86 %
23190	Wood Deck - Seal/Repair	4	$5,700	$1,425	0.97 %
23200	Wood Deck - Resurface	25	$36,700	$1,468	1.00 %
23220	Balcony Rails - Paint	5	$19,100	$3,820	2.60 %
23230	Balcony Rails - Replace	30	$35,000	$1,167	0.79 %
23310	Wood Siding – Repair/Repaint	5	$258,650	$51,730	35.18 %
23320	Wood Siding - Replace	50	$1,681,250	$33,625	22.87 %
23570	Roof: Composition Shingle - Replace	20	$369,950	$18,498	12.58 %
23600	Roof: Metal - Replace	40	$179,450	$4,486	3.05 %
23640	Roof: Wood Shingle - Replace	20	$260,000	$13,000	8.84 %
23650	Gutters/Downspouts - Replace	30	$31,900	$1,063	0.72 %
23660	Heat Tape - Replace	10	$47,900	$4,790	3.26 %
	Mechanicals				
25570	Irrigation Clocks - Replace	15	$6,450	$430	0.29 %
16	Total Funded Components			$147,057	100.00 %

30-Year Reserve Plan Summary

Report # 21306-1
With-Site-Visit

Fiscal Year Start: 2023	Interest: 1.00 %	Inflation: 3.00 %

Reserve Fund Strength: as-of Fiscal Year Start Date					Projected Reserve Balance Changes				
Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	% Increase In Annual Reserve Funding	Reserve Funding	Loan or Special Assmts	Interest Income	Reserve Expenses
2023	$195,428	$845,477	23.1 %	High	284.00 %	$192,000	$0	$2,578	$69,700
2024	$320,305	$950,518	33.7 %	Medium	3.00 %	$197,760	$0	$4,211	$0
2025	$522,277	$1,135,046	46.0 %	Medium	3.00 %	$203,693	$0	$4,606	$331,266
2026	$399,309	$988,587	40.4 %	Medium	3.00 %	$209,804	$0	$4,813	$50,156
2027	$563,770	$1,132,097	49.8 %	Medium	3.00 %	$216,098	$0	$6,749	$0
2028	$786,617	$1,336,539	58.9 %	Medium	3.00 %	$222,581	$0	$9,020	$0
2029	$1,018,218	$1,552,229	65.6 %	Medium	3.00 %	$229,258	$0	$11,242	$27,583
2030	$1,231,135	$1,751,247	70.3 %	Low	3.00 %	$236,136	$0	$10,350	$637,874
2031	$839,747	$1,333,061	63.0 %	Medium	3.00 %	$243,220	$0	$9,476	$36,103
2032	$1,056,340	$1,527,742	69.1 %	Medium	3.00 %	$250,516	$0	$11,756	$22,703
2033	$1,295,910	$1,747,822	74.1 %	Low	3.00 %	$258,032	$0	$14,276	$7,660
2034	$1,560,558	$1,995,928	78.2 %	Low	3.00 %	$265,773	$0	$17,012	$0
2035	$1,843,343	$2,265,473	81.4 %	Low	3.00 %	$273,746	$0	$17,039	$568,308
2036	$1,565,819	$1,964,038	79.7 %	Low	3.00 %	$281,958	$0	$16,936	$41,853
2037	$1,822,861	$2,202,287	82.8 %	Low	3.00 %	$290,417	$0	$16,917	$568,204
2038	$1,561,991	$1,912,215	81.7 %	Low	3.00 %	$299,130	$0	$17,058	$27,109
2039	$1,851,070	$2,177,642	85.0 %	Low	3.00 %	$308,104	$0	$20,143	$0
2040	$2,179,317	$2,486,034	87.7 %	Low	3.00 %	$317,347	$0	$21,049	$485,359
2041	$2,032,354	$2,311,049	87.9 %	Low	3.00 %	$326,867	$0	$21,618	$87,846
2042	$2,292,994	$2,547,765	90.0 %	Low	3.00 %	$336,673	$0	$24,726	$0
2043	$2,654,393	$2,889,799	91.9 %	Low	3.00 %	$346,773	$0	$27,933	$94,460
2044	$2,934,640	$3,152,768	93.1 %	Low	3.00 %	$357,177	$0	$31,113	$32,369
2045	$3,290,560	$3,495,787	94.1 %	Low	3.00 %	$367,892	$0	$31,899	$598,303
2046	$3,092,048	$3,274,637	94.4 %	Low	3.00 %	$378,929	$0	$32,367	$119,205
2047	$3,384,140	$3,549,032	95.4 %	Low	3.00 %	$390,296	$0	$35,780	$35,371
2048	$3,774,845	$3,926,975	96.1 %	Low	3.00 %	$402,005	$0	$39,941	$0
2049	$4,216,792	$4,361,926	96.7 %	Low	3.00 %	$414,066	$0	$44,380	$12,293
2050	$4,662,945	$4,806,778	97.0 %	Low	3.00 %	$426,487	$0	$42,933	$1,205,049
2051	$3,927,316	$4,046,236	97.1 %	Low	3.00 %	$439,282	$0	$41,333	$65,206
2052	$4,342,725	$4,447,009	97.7 %	Low	3.00 %	$452,461	$0	$45,900	$0

	Fiscal Year	2023	2024	2025	2026	2027
	Starting Reserve Balance	$195,428	$320,305	$522,277	$399,309	$563,770
	Annual Reserve Funding	$192,000	$197,760	$203,693	$209,804	$216,098
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$2,578	$4,211	$4,606	$4,813	$6,749
	Total Income	$390,005	$522,277	$730,575	$613,926	$786,617
#	Component					
	Sites and Grounds					
21090	Conc. Walks & Drives - Repair - 5%	$0	$0	$0	$10,272	$0
21190	Asphalt - Seal/Repair	$17,400	$0	$0	$19,013	$0
21200	Asphalt - Resurface	$52,300	$0	$0	$0	$0
	Building Exteriors					
23020	Ext. Lights - Replace	$0	$0	$0	$0	$0
23190	Wood Deck - Seal/Repair	$0	$0	$6,047	$0	$0
23200	Wood Deck - Resurface	$0	$0	$0	$0	$0
23220	Balcony Rails - Paint	$0	$0	$0	$20,871	$0
23230	Balcony Rails - Replace	$0	$0	$0	$0	$0
23310	Wood Siding – Repair/Repaint	$0	$0	$274,402	$0	$0
23320	Wood Siding - Replace	$0	$0	$0	$0	$0
23570	Roof: Composition Shingle - Replace	$0	$0	$0	$0	$0
23600	Roof: Metal - Replace	$0	$0	$0	$0	$0
23640	Roof: Wood Shingle - Replace	$0	$0	$0	$0	$0
23650	Gutters/Downspouts - Replace	$0	$0	$0	$0	$0
23660	Heat Tape - Replace	$0	$0	$50,817	$0	$0
	Mechanicals					
25570	Irrigation Clocks - Replace	$0	$0	$0	$0	$0
	Total Expenses	$69,700	$0	$331,266	$50,156	$0
	Ending Reserve Balance	$320,305	$522,277	$399,309	$563,770	$786,617

	Fiscal Year	2028	2029	2030	2031	2032
	Starting Reserve Balance	$786,617	$1,018,218	$1,231,135	$839,747	$1,056,340
	Annual Reserve Funding	$222,581	$229,258	$236,136	$243,220	$250,516
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$9,020	$11,242	$10,350	$9,476	$11,756
	Total Income	$1,018,218	$1,258,718	$1,477,621	$1,092,443	$1,318,613
#	Component					
	Sites and Grounds					
21090	Conc. Walks & Drives - Repair - 5%	$0	$0	$0	$11,908	$0
21190	Asphalt - Seal/Repair	$0	$20,777	$0	$0	$22,703
21200	Asphalt - Resurface	$0	$0	$0	$0	$0
	Building Exteriors					
23020	Ext. Lights - Replace	$0	$0	$0	$0	$0
23190	Wood Deck - Seal/Repair	$0	$6,806	$0	$0	$0
23200	Wood Deck - Resurface	$0	$0	$0	$0	$0
23220	Balcony Rails - Paint	$0	$0	$0	$24,195	$0
23230	Balcony Rails - Replace	$0	$0	$0	$0	$0
23310	Wood Siding – Repair/Repaint	$0	$0	$318,107	$0	$0
23320	Wood Siding - Replace	$0	$0	$0	$0	$0
23570	Roof: Composition Shingle - Replace	$0	$0	$0	$0	$0
23600	Roof: Metal - Replace	$0	$0	$0	$0	$0
23640	Roof: Wood Shingle - Replace	$0	$0	$319,767	$0	$0
23650	Gutters/Downspouts - Replace	$0	$0	$0	$0	$0
23660	Heat Tape - Replace	$0	$0	$0	$0	$0
	Mechanicals					
25570	Irrigation Clocks - Replace	$0	$0	$0	$0	$0
	Total Expenses	$0	$27,583	$637,874	$36,103	$22,703
	Ending Reserve Balance	$1,018,218	$1,231,135	$839,747	$1,056,340	$1,295,910

	Fiscal Year	2033	2034	2035	2036	2037
	Starting Reserve Balance	$1,295,910	$1,560,558	$1,843,343	$1,565,819	$1,822,861
	Annual Reserve Funding	$258,032	$265,773	$273,746	$281,958	$290,417
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$14,276	$17,012	$17,039	$16,936	$16,917
	Total Income	$1,568,218	$1,843,343	$2,134,128	$1,864,714	$2,130,195
#	Component					
	Sites and Grounds					
21090	Conc. Walks & Drives - Repair - 5%	$0	$0	$0	$13,804	$0
21190	Asphalt - Seal/Repair	$0	$0	$24,808	$0	$0
21200	Asphalt - Resurface	$0	$0	$0	$0	$0
	Building Exteriors					
23020	Ext. Lights - Replace	$0	$0	$44,911	$0	$0
23190	Wood Deck - Seal/Repair	$7,660	$0	$0	$0	$8,622
23200	Wood Deck - Resurface	$0	$0	$52,325	$0	$0
23220	Balcony Rails - Paint	$0	$0	$0	$28,049	$0
23230	Balcony Rails - Replace	$0	$0	$0	$0	$0
23310	Wood Siding – Repair/Repaint	$0	$0	$368,773	$0	$0
23320	Wood Siding - Replace	$0	$0	$0	$0	$0
23570	Roof: Composition Shingle - Replace	$0	$0	$0	$0	$559,583
23600	Roof: Metal - Replace	$0	$0	$0	$0	$0
23640	Roof: Wood Shingle - Replace	$0	$0	$0	$0	$0
23650	Gutters/Downspouts - Replace	$0	$0	$0	$0	$0
23660	Heat Tape - Replace	$0	$0	$68,294	$0	$0
	Mechanicals					
25570	Irrigation Clocks - Replace	$0	$0	$9,196	$0	$0
	Total Expenses	$7,660	$0	$568,308	$41,853	$568,204
	Ending Reserve Balance	$1,560,558	$1,843,343	$1,565,819	$1,822,861	$1,561,991

	Fiscal Year	2038	2039	2040	2041	2042
	Starting Reserve Balance	$1,561,991	$1,851,070	$2,179,317	$2,032,354	$2,292,994
	Annual Reserve Funding	$299,130	$308,104	$317,347	$326,867	$336,673
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$17,058	$20,143	$21,049	$21,618	$24,726
	Total Income	$1,878,179	$2,179,317	$2,517,713	$2,380,839	$2,654,393
#	Component					
	Sites and Grounds					
21090	Conc. Walks & Drives - Repair - 5%	$0	$0	$0	$16,003	$0
21190	Asphalt - Seal/Repair	$27,109	$0	$0	$29,622	$0
21200	Asphalt - Resurface	$0	$0	$0	$0	$0
	Building Exteriors					
23020	Ext. Lights - Replace	$0	$0	$0	$0	$0
23190	Wood Deck - Seal/Repair	$0	$0	$0	$9,704	$0
23200	Wood Deck - Resurface	$0	$0	$0	$0	$0
23220	Balcony Rails - Paint	$0	$0	$0	$32,516	$0
23230	Balcony Rails - Replace	$0	$0	$57,850	$0	$0
23310	Wood Siding – Repair/Repaint	$0	$0	$427,509	$0	$0
23320	Wood Siding - Replace	$0	$0	$0	$0	$0
23570	Roof: Composition Shingle - Replace	$0	$0	$0	$0	$0
23600	Roof: Metal - Replace	$0	$0	$0	$0	$0
23640	Roof: Wood Shingle - Replace	$0	$0	$0	$0	$0
23650	Gutters/Downspouts - Replace	$0	$0	$0	$0	$0
23660	Heat Tape - Replace	$0	$0	$0	$0	$0
	Mechanicals					
25570	Irrigation Clocks - Replace	$0	$0	$0	$0	$0
	Total Expenses	$27,109	$0	$485,359	$87,846	$0
	Ending Reserve Balance	$1,851,070	$2,179,317	$2,032,354	$2,292,994	$2,654,393

	Fiscal Year	2043	2044	2045	2046	2047
	Starting Reserve Balance	$2,654,393	$2,934,640	$3,290,560	$3,092,048	$3,384,140
	Annual Reserve Funding	$346,773	$357,177	$367,892	$378,929	$390,296
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$27,933	$31,113	$31,899	$32,367	$35,780
	Total Income	$3,029,100	$3,322,930	$3,690,352	$3,503,344	$3,810,216
#	Component					
	Sites and Grounds					
21090	Conc. Walks & Drives - Repair - 5%	$0	$0	$0	$18,552	$0
21190	Asphalt - Seal/Repair	$0	$32,369	$0	$0	$35,371
21200	Asphalt - Resurface	$94,460	$0	$0	$0	$0
	Building Exteriors					
23020	Ext. Lights - Replace	$0	$0	$0	$0	$0
23190	Wood Deck - Seal/Repair	$0	$0	$10,922	$0	$0
23200	Wood Deck - Resurface	$0	$0	$0	$0	$0
23220	Balcony Rails - Paint	$0	$0	$0	$37,696	$0
23230	Balcony Rails - Replace	$0	$0	$0	$0	$0
23310	Wood Siding – Repair/Repaint	$0	$0	$495,600	$0	$0
23320	Wood Siding - Replace	$0	$0	$0	$0	$0
23570	Roof: Composition Shingle - Replace	$0	$0	$0	$0	$0
23600	Roof: Metal - Replace	$0	$0	$0	$0	$0
23640	Roof: Wood Shingle - Replace	$0	$0	$0	$0	$0
23650	Gutters/Downspouts - Replace	$0	$0	$0	$62,957	$0
23660	Heat Tape - Replace	$0	$0	$91,781	$0	$0
	Mechanicals					
25570	Irrigation Clocks - Replace	$0	$0	$0	$0	$0
	Total Expenses	$94,460	$32,369	$598,303	$119,205	$35,371
	Ending Reserve Balance	$2,934,640	$3,290,560	$3,092,048	$3,384,140	$3,774,845

	Fiscal Year	2048	2049	2050	2051	2052
	Starting Reserve Balance	$3,774,845	$4,216,792	$4,662,945	$3,927,316	$4,342,725
	Annual Reserve Funding	$402,005	$414,066	$426,487	$439,282	$452,461
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$39,941	$44,380	$42,933	$41,333	$45,900
	Total Income	$4,216,792	$4,675,237	$5,132,365	$4,407,931	$4,841,085
#	Component					
	Sites and Grounds					
21090	Conc. Walks & Drives - Repair - 5%	$0	$0	$0	$21,507	$0
21190	Asphalt - Seal/Repair	$0	$0	$38,650	$0	$0
21200	Asphalt - Resurface	$0	$0	$0	$0	$0
	Building Exteriors					
23020	Ext. Lights - Replace	$0	$0	$0	$0	$0
23190	Wood Deck - Seal/Repair	$0	$12,293	$0	$0	$0
23200	Wood Deck - Resurface	$0	$0	$0	$0	$0
23220	Balcony Rails - Paint	$0	$0	$0	$43,699	$0
23230	Balcony Rails - Replace	$0	$0	$0	$0	$0
23310	Wood Siding – Repair/Repaint	$0	$0	$574,536	$0	$0
23320	Wood Siding - Replace	$0	$0	$0	$0	$0
23570	Roof: Composition Shingle - Replace	$0	$0	$0	$0	$0
23600	Roof: Metal - Replace	$0	$0	$0	$0	$0
23640	Roof: Wood Shingle - Replace	$0	$0	$577,535	$0	$0
23650	Gutters/Downspouts - Replace	$0	$0	$0	$0	$0
23660	Heat Tape - Replace	$0	$0	$0	$0	$0
	Mechanicals					
25570	Irrigation Clocks - Replace	$0	$0	$14,327	$0	$0
	Total Expenses	$0	$12,293	$1,205,049	$65,206	$0
	Ending Reserve Balance	$4,216,792	$4,662,945	$3,927,316	$4,342,725	$4,841,085

Accuracy, Limitations, and Disclosures

Association Reserves and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. Bryan Farley, R.S., president of the Colorado LLC, is a credentialed Reserve Specialist (#260). All work done by Association Reserves is performed under his Responsible Charge and is performed in accordance with National Reserve Study Standards (NRSS). There are no material issues to our knowledge that have not been disclosed to the client that would cause a distortion of the client's situation.

Per NRSS, information provided by official representative(s) of the client, vendors, and suppliers regarding financial details, component physical details and/or quantities, or historical issues/conditions will be deemed reliable, and is not intended to be used for the purpose of any type of audit, quality/forensic analysis, or background checks of historical records. As such, information provided to us has not been audited or independently verified.

Estimates for interest and inflation have been included, because including such estimates are more accurate than ignoring them completely. When we are hired to prepare Update reports, the client is considered to have deemed those previously developed component quantities as accurate and reliable, whether established by our firm or other individuals/firms (unless specifically mentioned in our Site Inspection Notes). During inspections our company standard is to establish measurements within 5% accuracy, and our scope includes visual inspection of accessible areas and components and does not include any destructive or other testing. Our work is done only for budget purposes. Uses or expectations outside our expertise and scope of work include, but are not limited to, project audit, quality inspection, and the identification of construction defects, hazardous materials, or dangerous conditions. Identifying hidden issues such as but not limited to plumbing or electrical problems are also outside our scope of work. Our estimates assume proper original installation & construction, adherence to recommended preventive maintenance, a stable economic environment, and do not consider frequency or severity of natural disasters. Our opinions of component Useful Life, Remaining Useful Life, and current or future cost estimates are not a warranty or guarantee of actual costs or timing.

Because the physical and financial status of the property, legislation, the economy, weather, owner expectations, and usage are all in a continual state of change over which we have no control, we do not expect that the events projected in this document will all occur exactly as planned. This Reserve Study is by nature a "one-year" document in need of being updated annually so that more accurate estimates can be incorporated. It is only because a long-term perspective improves the accuracy of near-term planning that this Report projects expenses into the future. We fully expect a number of adjustments will be necessary through the interim years to the cost and timing of expense projections and the funding necessary to prepare for those estimated expenses.

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.
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 the "30-yr Income/Expense Detail" table.
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 are maintenance, repair & replacement reasonability
2) Components must have a limited life
3) Life limit must be predictable
4) Above a minimum threshold cost (board's discretion – typically ½ 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 cost; 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.

Comp #: 21090 Conc. Walks & Drives - Repair - 5% **Quantity: 5% of ~ 15100 GSF**
Location: Common Areas
Funded?: Yes.
History:
Comments: Concrete sidewalks and driveways determined to be in fair condition typically exhibit minor changes in slope and a moderate percentage of cracking and surface wear. Due to the progressive nature of build dates, a concrete allowance provides ongoing funds for maintaining the concrete. This assumes partial repair and replace as opposed to full replacement.

Trip hazards may be increasing in frequency and severity and should be closely monitored to prevent further risks. The Rocky Mountain Region 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:
5 years

Remaining Life:
3 years

Best Case: $ 7,500 Worst Case: $ 11,300

Cost Source: Allowance

Comp #: 21190 Asphalt - Seal/Repair **Quantity: ~ 11600 GSF**

Location: Common Areas

Funded?: Yes.

History:

Comments: Significant deterioration of asphalt observed due to lack of seal cycle. Asphalt seal was observed to be in poor condition at the time of the inspection. The seal appeared to be weathered and faded. Exposed aggregate and a gravely texture was noted. Plan to seal the asphalt soon. Regular cycles of seal coating (along with any needed repair) has proven to be the best program in our opinion for the long term care of lower traffic asphalt areas such as these. The primary reason to seal coat asphalt pavement is to protect the pavement from the deteriorating effects of sun and water. When asphalt pavement is exposed the asphalt oxidizes or hardens which causes the pavement to become more brittle. As a result the pavement will be more likely to crack because it is unable to bend and flex when subjected to traffic and temperature changes. A seal coat combats this situation by providing a waterproof membrane which not only slows down the oxidation process but also helps the pavement to shed water preventing it from entering the base material. Seal coat also provides uniform appearance concealing the inevitable patching and repairs which accumulate over time. Seal coat ultimately extends useful life of asphalt postponing the asphalt resurfacing which can be one of the larger cost items in this study (see component #21200 for asphalt resurfacing costs). Repair asphalt before seal coating. Surface preparation and dry weather during and following application is key to lasting performance. The ideal conditions are a warm sunny day with low humidity rain can cause major problems when seal coating and should never be done when showers are threatening. Incorporate any striping and curb repair into this project. Fill cracks and clean oil stains promptly in between cycles as routine maintenance. Prior to a seal coat application the areas will be cleaned with push blowers and wire brooms.Be aware that sealcoat will not adhere to heavily saturated oil spots. Vendors typically recommend infrared patching on areas with saturated oil spots to ensure adherence of sealcoat.

Useful Life:
3 years

Remaining Life:
0 years

Best Case: $ 11,600 Worst Case: $ 23,200

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 21200 Asphalt - Resurface **Quantity: ~ 11600 GSF**

Location: Common Areas

Funded?: Yes.

History:

Comments: Spalling and crumbling observed. Asphalt pavement determined to be in poor condition typically exhibits more substantial consistent patterns of wear and age including longer wider cracks and/or patterns of cracking. Raveling is more advanced resulting in dimpled rougher texture over most (if not all) areas. Color has faded and curb appeal is declining. At this stage timeline for resurfacing should be discussed and proper scope of work developed. Useful life below assumes regular seal coating and repairs. The lack of seal coating and repairs can greatly decrease the asphalt's useful life. Resurfacing is typically one of the larger expense items in a reserve study. When need to resurface is apparent within a couple of years consult with geotechnical engineer for recommendations specifications / scope of work and project oversight. As routine maintenance keep surfaces clean and free of debris ensure that drains are free flowing repair cracks and clean oil stains promptly. Assuming proactive maintenance plan to resurface at roughly the time frame below. If regular maintenance and sealing is deferred client may need more extensive repair and replacement projects. Funding below assumes that asphalt has adequate subgrade as well as asphalt fill depth. If fill depth is less than 2" client may need to consider a remove and replacement project which can increase costs by 50% or more. Further resources: Pavement Surface Condition Field Rating Manual for Asphalt Pavement. http://co-asphalt.com/resources/maintenance-and-preservation/

Useful Life:
20 years

Remaining Life:
0 years

Best Case: $ 46,500 Worst Case: $ 58,100

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23020 Ext. Lights - Replace **Quantity: ~ (130) Lights**
Location: Building Exteriors
Funded?: Yes.
History:
Comments: Replacing exterior components collectively provides cost efficiencies and economies of scale. Plan to replace the following components in Building Exteriors chapter together in order to achieve aesthetic consistency and fiscal efficiency.

Exterior lights determined to be in fair condition typically exhibit more moderate signs of wear and age but are generally believed to be aging normally with no unusual conditions noted. Observed during daylight hours but assumed to be in functional operating condition. As routine maintenance clean by wiping down with an appropriate cleaner change bulbs and repair as needed. Best practice is to plan for replacement of all lighting together at roughly the time frame below for cost efficiency and consistent quality/appearance throughout development. Should be coordinated with exterior painting projects whenever possible. Individual replacements should be considered an Operating expense. If available an extra supply of replacement fixtures should be kept on-site to allow for prompt replacement.

Useful Life:
25 years

Remaining Life:
12 years

Best Case: $ 25,200 Worst Case: $ 37,800

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23190 Wood Deck - Seal/Repair **Quantity: ~ 1600 GSF**

Location: Building Exteriors

Funded?: Yes.

History:

Comments: The finish on the deck surfaces appeared in fair condition. Minimal evidence of cracking fading and peeling of the paint/stain was observed. Wood seal coatings lose thickness each year due to wear and exposure to UV light. If more than the topcoat is allowed to wear off the surface may still appear to be in 'good' condition to the untrained eye but waterproof integrity may be compromised. Decks should be thoroughly evaluated by a decking or waterproofing contractor prior to re-coating in order to determine scope of any required repairs. If the deck system has a warranty the client should make sure to follow any requirements necessary to maintain said warranty such as re-coating at required intervals and conducting professional inspections. As a general rule potted plants and other items that may trap water should be elevated off the deck or used with a waterproof liner in order to prevent prolonged exposure.

Useful Life:
4 years

Remaining Life:
2 years

Best Case: $ 4,900 Worst Case: $ 6,500

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23200 Wood Deck - Resurface **Quantity: ~ 1600 GSF**

Location: Building Exteriors

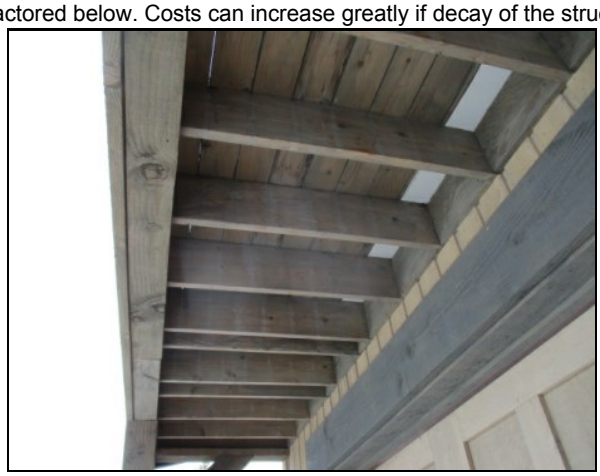
Funded?: Yes.

History:

Comments: The deck surfaces appeared in fair condition. No broken or missing sections observed. Minimal evidence of cracking fading and peeling of the paint/stain was observed. Wood deck surface was painted/stained. No decay of boards was observed. Plan for large scale repair / replacement at roughly the interval below. As routine maintenance inspect deck stairs and railings annually and repair as needed. As part of maintenance apply water repellant stain/preservative at least every other year. Options for a longer lasting deck include such things as using a thick wood boards of suitable species or a composite product. Composite materials are available that require less maintenance and lower life cycle costs typically. Funding for replacing existing wood boards with in-kind material is factored below. Costs can increase greatly if decay of the structural framing is found.

Useful Life:
25 years

Remaining Life:
12 years



Best Case: $ 32,600 Worst Case: $ 40,800

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23220 Balcony Rails - Paint **Quantity: ~ 640 LF**

Location: Building Exteriors

Funded?: Yes.

History:

Comments: Deck railing finishes determined to be in fair condition typically exhibit minor to moderate wear with faded but consistent color. Coating is generally intact but may be beginning to peel or flake in sections. Railings should be painted/re-coated at the approximate interval shown below in order to restore good appearance and protect the railings from excessive surface wear. If railing is exposed to the elements without adequate coating for an extended period of time useful life may be severely reduced. Best practice is to coordinate with other exterior projects when possible such as deck re-coating or exterior painting.

Useful Life:
5 years

Remaining Life:
3 years

Best Case: $ 15,900 Worst Case: $ 22,300

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23230 Balcony Rails - Replace **Quantity: ~ 640 LF**

Location: Building Exteriors

Funded?: Yes.

History:

Comments: Deck railings determined to be in fair condition typically exhibit some wear and age but are not showing any advanced structural concerns loose attachments rust etc. Appearance may be declining or outdated at this stage but railings are still performing their intended function. Post attachments and hardware should be inspected periodically for corrosion/rust and any waterproofing issues. As routine maintenance inspect regularly to ensure safety and stability repair promptly as needed using general operating/maintenance funds. We suggest Reserve funding for regular intervals of total replacement as indicated below. Unless otherwise noted costs shown are based on replacement with a similar style of railing. However if the client chooses to upgrade or replace with a different style costs may be substantially different. Any new information about changes in style should be incorporated into future Reserve Study updates.

Useful Life:
30 years

Remaining Life:
17 years

Best Case: $ 31,800 Worst Case: $ 38,200

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23310 Wood Siding – Repair/Repaint **Quantity: ~ 64700 GSF**

Location: Building Exteriors

Funded?: Yes.

History: Exterior siding painted in 2020.

Comments: Painted exterior surfaces determined to be in fair condition typically exhibit some minor to moderate signs of wear and age such as chalking peeling blistering etc. Problems tend to develop in more exposed areas first. Hairline cracks may be present at this stage. Overall appearance is satisfactory. As routine maintenance inspect regularly (including sealants) repair locally and touch-up paint as needed. Typical paint cycles can vary greatly depending upon many factors including type of material painted surface preparations quality of material application methods weather conditions during application moisture beneath paint and exposure to weather conditions. Proper sealant/caulking is critical to preventing water intrusion and resulting damage to the building structure. Incorrect installations of sealant are common and can greatly decrease its useful life. Inspect sealant more frequently as it ages to determine if it is failing. Typical sealant problems include failure of sealant to adhere to adjacent materials and tearing/splitting of the sealant itself. As sealants age and are exposure to ultra-violet sunlight they will dry out harden and lose their elastic ability. Remove and replace sealant as signs of failure begin to appear. Proper cleaning prep work and proper installation are critical for a long lasting sealant/caulking. Do not install sealant in locations that would block water drainage from behind the siding. Repair areas as needed prior to project. For best results the client may want to consult with a building envelope specialist or waterproofing contractor to specify types of materials to be used and define complete scope of work before bidding. Best practice is to coordinate this type of work with other projects whenever practical such as balcony sealing planter waterproofing etc.

Useful Life:
5 years

Remaining Life:
2 years

Best Case: $ 194,000 Worst Case: $ 323,300

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23320 Wood Siding - Replace **Quantity: ~ 64700 GSF**

Location: Building Exteriors

Funded?: Yes.

History:

Comments: Wood siding determined to be in fair condition typically exhibits some color fading and inconsistency with minor isolated locations showing more advanced surface wear cracking splintering etc. Project costs can vary depending upon materials chosen and the condition of the underlying structural framing when exposed. We recommend the Board conduct research well in advance in order to define scope timing and costs including plan for some margin of contingency. Siding is horizontal clapboard, vertical clapboard, and shingle. Surface was painted and/or stained. No view of the critical underlying waterproofing was available as part of our limited visual review. Replacement may ultimately be needed due to the failure of the underlying waterproofing degrading over the decades and/or the end of the useful life of the siding materials from general aging. Many factors influence the useful life including exposure to (or protection from) wind driven rain and the quality of the waterproofing and flashing beneath the siding. Evaluate the siding and the critical underlying waterproofing (typically building paper or house-wrap) more frequently as the remaining useful life approaches zero years. Adjust remaining useful life as dictated by the evaluation. Align with window replacement for cost efficiencies and building envelope integrity when practical. Inspect annually and repair locally as needed using general maintenance funds. Keep the wood siding painted to protect the wood from decay caused by water. Another item that greatly influences useful life is the thoroughness of the original painting. Wood siding will last longer if each piece was painted on all six sides. Typically wood siding is painted on the two sides that are exposed and not on the back ends or top. Since we perform only a visual review we were unable to confirm the extents of the painting. It is reasonable to presume that not all six sides are painted. If the siding is not painted on all sides water can infiltrate and be absorbed into the wood on the unpainted sides which over time will lead to cupping warping and decay limiting its useful life.

Useful Life:
50 years

Remaining Life:
44 years

Best Case: $ 1,422,600 Worst Case: $ 1,939,900

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23370 Stone Veneer - Maintain/Repair **Quantity: ~ 12900 GSF**

Location: Exteriors

Funded?: No. Does not meet National Reserve Study Standards - not predictable

History:

Comments: No reported issues at the time of the inspection. Evidence of minor cracking, was observed during our limited inspection. Some cracked grout or broken stones observed. Brick or other masonry siding is typically a low maintenance surface that requires minimal, infrequent repair. However, in some cases (usually after several decades or more), the original mortar between bricks may require repointing to restore appearance and adequately protect against water intrusion. Repointing involves raking out a portion of the existing mortar and installing new mortar and continuing on until all affected sections have been replaced. In our experience, there is not a well-defined predictable timeline for repointing work, usually making this project inappropriate for Reserve funding. If re-pointing is a concern, we strongly recommend further inspection by a qualified engineer and/or masonry specialist to diagnose existing conditions and recommend a scope of work. If warranted, the Reserve Study can be adjusted to include funding recommendations going forward.

Useful Life:

Remaining Life:

Best Case: Worst Case:

Cost Source:

Comp #: 23570 Roof: Composition Shingle - Replace **Quantity: ~ 26400 GSF**

Location: Building Exteriors

Funded?: Yes.

History:

Comments: Closed valleys were observed. Ventilation (the lack of which can greatly reduce the roof's useful life) was observed at the eave and ridge. Eave venting consisted of linear soffit vents. Ridge venting appeared to be provided by continuous ridge vents and roof jacks. Debris was not observed on the roof surface. Asphalt shingle roofs determined to be in fair condition and typically exhibit normal signs of wear and deterioration including some loss of granule cover and light to moderate curling/lifting especially in most exposed areas. Overall believed to be aging normally. A reserve study conducts only a limited visual review and many of the critical waterproofing and ventilation items of the roof are not readily viewable. For a full evaluation have a professional roof consultant/contractor perform a thorough up-close survey of your entire roof system including attic inspection (if any). Costs below factors replacement with an architectural grade laminated shingle. As routine maintenance many manufacturers recommend inspections at least twice annually (once in the fall before the snow season and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or any other repair needed to ensure waterproof integrity of roof. Keep roof surface gutters and downspouts clear and free of debris. At the time of re-roofing we recommend that you hire a professional consultant to evaluate the existing roof and specify the new roof materials/design provide installation oversight. We recommend that all clients hire qualified consultants whenever they are considering having work performed on any building envelope (waterproofing) components including: roof walls windows decks exterior painting and caulking/sealant. There is a wealth of information available through Roofing Organizations such as: National Roofing Contractors client (NRCA) http://www.nrca.net. Asphalt Roofing Manufacturers client (ARMA) http://www.asphaltroofing.org/ Roof Consultant Institute (RCI) http://www.rci-online.org

Useful Life:
20 years

Remaining Life:
14 years

Best Case: $ 317,100 Worst Case: $ 422,800

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23600 Roof: Metal - Replace **Quantity: ~ 7600 GSF**

Location: Building Exteriors

Funded?: Yes.

History:

Comments: Roofing consists of pro panel metal roof. Typically metal roofs are either Pro-Panel seamed roofs or Standing Seam roofs. Pro Panel roofs are installed with exposed metal screws and fasteners while Standing Seam will snap lock panels over the mechanical seam with no penetrations to the underlayment. Advantages of metal roofs include long life expectancies with relatively low need to repair. Metal roofing is typically a long-lived component assuming it was properly installed and is properly maintained. As routine maintenance many manufacturers recommend inspections at least twice annually (once in the fall before the rainy season and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or conduct any other repair needed to ensure waterproof integrity of roof. We recommend having roof inspected in greater detail (including conditions of sub-surface materials) by an independent roofing consultant prior to replacement. There is a wealth of information available through organizations such as the Roof Consultant Institute http://www.rci-online.org and the National Roofing Contractors client (NRCA) http://www.nrca.net/. If the roof has a warranty be sure to review terms and conduct proper inspections/repairs as needed to keep warranty in force.

Useful Life:
40 years

Remaining Life:
34 years

Best Case: $ 168,000 Worst Case: $ 190,900

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23640 Roof: Wood Shingle - Replace **Quantity: ~ 14900 GSF**

Location: Buildings 1, 11, 12.

Funded?: Yes.

History:

Comments: A reserve study conducts only a limited visual review and many of the critical waterproofing and ventilation items of the roof are not readily viewable. For a full evaluation have a professional roof consultant/contractor perform a thorough up-close survey of your entire roof system including attic inspection (if any). Useful life of wood roofing varies based on many factors including proper drainage and ventilation on the underside of the wood shingles. The useful life used below is suggested for general financial planning purposes. As routine maintenance many manufacturers recommend inspections at least twice annually (once in the fall before the rainy season and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or any other repair needed to ensure waterproof integrity of roof. Keep roof surface gutters and downspouts clear and free of moss or debris. At the time of re-roofing we recommend that you hire a professional consultant to evaluate the existing roof and specify the new roof materials/design provide installation oversight. We recommend that all clients hire qualified consultants whenever they are considering having work performed on any building envelope (waterproofing) components including: roof walls windows decks exterior painting and caulking/sealant. The Cedar Bureau's roof installation manual is very useful. Http://www.cedarbureau.org/manuals/imperial/2015/RFI/RoofManual-0407-i.pdf The National Roofing Contractors client (NRCA) publishes the NRCA Roofing Manual. It has four volumes: wood roofing is covered in the steep-slope volume. That volume cost about $200 and provides comprehensive information regarding Steep-slope Roof Systems (wood shake and wood shingle asphalt clay and concrete tile metal synthetic and slate). The current edition is 2009 and they intend to update it every four years. It is fairly user friendly for the layperson with many easy to understand drawings. Older versions are available at the public library or through inter-library loan

Useful Life:
20 years

Remaining Life:
7 years

Best Case: $ 230,000 Worst Case: $ 290,000

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23650 Gutters/Downspouts - Replace **Quantity: ~ 2700 LF**

Location: Building Exteriors

Funded?: Yes.

History:

Comments: Gutters and downspouts determined to be in fair condition typically exhibit some normal wear and tear but drainage away from the roof and building appears to be adequate. Generally believed to be aging normally. Gutters and downspouts are assumed to be functioning properly unless otherwise noted. As routine maintenance inspect regularly keep gutters and downspouts free of debris. If buildings are located near trees keep trees trimmed back to avoid accumulation of leaves on the roof surface which will accumulate in the gutters and increase maintenance requirements while reducing life expectancy. Repair or replace individual sections as needed as an Operating expense. We generally recommend that the gutters and downspouts be replaced when the roof is being resurfaced/replaced. National Roofing Contractor client (NRCA) roofing standard includes installing eave flashings at the gutters. We suggest to plan for total replacement of gutter and downspouts at the same intervals as roof replacement for cost efficiency. Unless otherwise noted costs shown here assume replacement with similar type as are currently in place.

Useful Life:
30 years

Remaining Life:
23 years

Best Case: $ 26,600 Worst Case: $ 37,200

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 23660 Heat Tape - Replace **Quantity: ~ 2700 LF**

Location: Building Exteriors

Funded?: Yes.

History:

Comments: The heat tape was reported to be in fair condition. No stripped or ripped taped noted or reported. Heat tape was observed along the edges of the roof and the downspouts. Heat tape generally follows the length of the gutter and downspouts. Heat cables when installed and functioning properly will help offset the likelihood of an ice dam. Heat tape on average creates an output between 50-70°F. When installed in the gutters the heat cables can keep your gutters and downspouts from collecting and freezing with ice and snow melt.

Useful Life:
10 years

Remaining Life:
2 years

Best Case: $ 42,600 Worst Case: $ 53,200

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 25570 Irrigation Clocks - Replace **Quantity: ~ (3) Controllers**

Location: Common Areas

Funded?: Yes.

History:

Comments: Includes (3) Rainbird ESP-TM2 Clocks. Minimal or no subjective/aesthetic value for this component. Useful life is based primarily on normal expectations for service/performance life in this location. Unless otherwise noted remaining useful life expectancy is based primarily on original installation or last replacement/purchase date our experience with similar systems/components and assuming normal amount of usage and good preventive maintenance. Irrigation controllers should have a relatively long life expectancy under normal circumstances. Replacement is often required due to lack of available replacement parts lightning strikes etc. as opposed to complete failure of existing equipment. Exposure to the elements can affect overall life expectancy and controllers should be located in protected areas or within protective enclosures whenever possible. When evaluating replacement options the client should consider replacement with smart" models (i.e. respond to projected weather data) to minimize unnecessary water usage. Payback period for efficient controllers that minimize water use is typically very short

Useful Life:
15 years

Remaining Life:
12 years

Best Case: $ 6,000 Worst Case: $ 6,900

Cost Source: ARI Cost Database: Similar Project Cost History