Timberline Ridge HOA

Sammamish, WA

Level III Reserve Study Update (No Site-Visit)

Fiscal Year: 2020

Report#: 16062

Version: Final

Reserve Data Analyst, Inc.

www.reservedataanalyst.com

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Timberline Ridge HOA
Introduction

Thank you for utilizing the services of Reserve Data Analyst for your reserve study. We strive to create a comprehensive report that can be utilized for your budgeting needs. If there are any questions, concerns, corrections or revisions needed please do not hesitate to call or email us. While this study does have some explanations of the methodology used, we have kept it to a minimum for brevity. More detailed explanations of methodology & concepts are explained in our Reserve Study Guidebook available at the following link:

www.reservedataanalyst.com/guidebook

There are a couple of tips to consider that will help you both navigate this study and understand the different sections within the study:

- ***Study Navigation*** - To most easily navigate this study, we recommend printing out the Table of Contents page at the beginning of the study and the Component Index pages at the rear of the study. We have found it easiest for most readers to have the PDF of this study open on their computer while referring to the printed-out Table of Contents and Component Index pages.

- ***Video Summary*** - We have created a video summary of a sample study to explain the different pages & reports within this study. You can view this video in a smaller browser window while navigating your study for an explanation of each page in the study. This can be extremely helpful and answers many of questions that we receive from readers of our reserve studies. Link below:

www.reservedataanalyst.com/video

Within this reserve study you will find:

- A list of common questions that a typical reader of our reserve study will have as well as links to additional information on the topics: (*Reserve Study Knowledge Base*)

- A list of the site and building components that are reportedly the Client's responsibility along with their respective costs and quantity: (*The Component List*)

- A timeline of the estimated dates that we recommend funds be allocated to the repair/replacement project. (*Projected Expenditures Report*)

- Various funding models with different goals in mind (e.g. only staying cash positive). Keep in mind that funding models that remain in a *low percent funded range* for an extended period will carry a much higher risk for reliance on emergency financing or the need to defer overdue projects should some of the component projects occur sooner than projected. (*Summary and Projections for each Funding Model*)

Timberline Ridge HOA
Executive Summary

Name	Timberline Ridge HOA
Location	Sammamish, WA
Contributing Members	200
Base Year / Age	June 1, 2000
Fiscal Year Ends	December 31, 2020

Level of Service	Level III Reserve Study Update (No Site-Visit)
Prepared for Fiscal Year	2020
Last On-Site Inspection Date	December 6, 2018
Inflation Rate	3.0%
*Interest Rate	1%
*Tax Rate On Interest	30%
Funding Plan Method	Cash Flow Method

Reserve Account Summary

***Current Annual Reserve Allocation Rate**	$14,000 per year
***Estimated FY Start Balance**	$94,000
***Approved Special Assessments**	None approved for fiscal year 2020.
***Approved Loans**	None approved for fiscal year 2020.
Fully Funded Balance	$267,838 (ideal amount in reserve account)
Current Percent Funded	----------> **35%** 0-30% LOW | 30-70% FAIR | 70-100% GOOD
Avg. (Deficit) or Surplus Per Contributing Member	(-$869) per member

5-Year Summary - Annual Reserve Allocation Rates & Year End % Funded

	100% Funding Model		Recommended Funding Model		Baseline Funding Model		*Current Funding Model		
2020	$199,161	100%	$28,000	38%	$23,048	36%	$14,000	33%	***2020***
2021	$26,892	100%	$28,840	44%	$23,739	41%	$14,420	35%	***2021***
2022	$27,699	100%	$29,705	50%	$24,451	45%	$14,853	37%	***2022***
2023	$28,530	100%	$30,596	54%	$25,185	48%	$15,298	38%	***2023***
2024	$29,386	100%	$31,514	56%	$25,940	49%	$15,757	36%	***2024***
	Account is at least 100% funded each year.		*Achieve 100% funded within the timeframe of this study.*		*Reserve account above $0 within timeframe of study.*		*Current allocation rate has been supplied by the Client.*		

** Data supplied by the Client, assumed to be correct and not independently verified.*
***Any negative percent funded shown is for visual representation of deficiency.*

What is a Reserve Study?

A reserve study is a budgeting tool that can be utilized to make more informed budgeting decisions regarding a reserve account, it is an independent assessment of the adequacy of the reserve account balance and allocation rate utilizing a mathematical formal known as the "Percent Funded" calculation.

The Reserve Analyst develops funding models that:

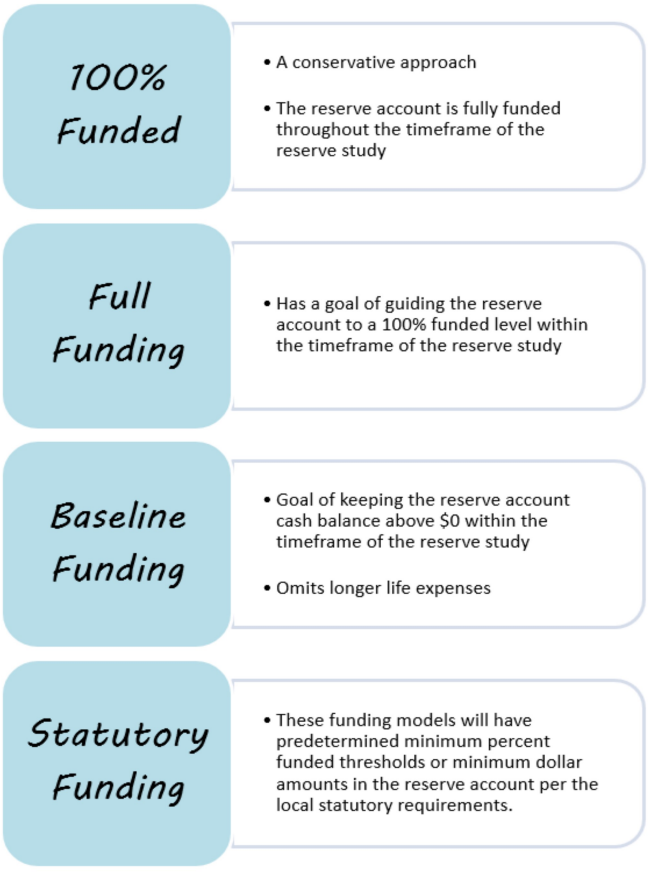
- Distribute the costs as fairly as possible over time
- Have stable budgets over time (i.e. limiting large fluctuations from one year to the next)
- Limit the risk for reliance on emergency financing or having to defer overdue projects

A Reserve Study is an independent assessment of the reserve account and is not the Budget ….

The reserve study is not the budget and it should not be revised to just reflect the budgeting decisions of the Client. An example of this is to push off overdue projects that the Client may not have the funds to complete. The reserve study should reflect the replacement dates of the components utilizing average useful lives and average costs for these projects; the useful lives can be updated to reflect actual on-site conditions as the components age. Should the Client decide to defer projects that appear to be overdue this is simply a budgeting decision that carries its own risk.

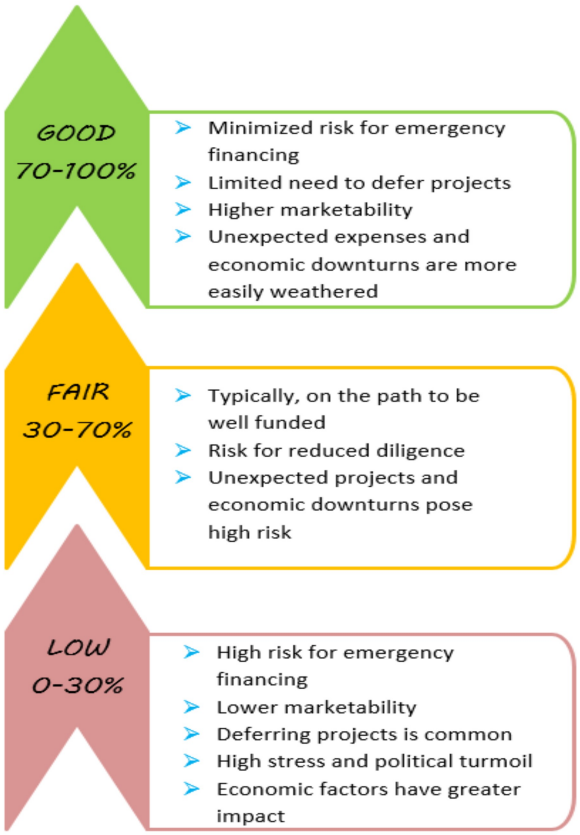
How Much Should We Reserve?

There is no right or wrong answer to the question of "How Much Should We Reserve?" as the reserve contributions in all the funding models in this study are based on different funding goals. It is more appropriate to consider the risk levels associated with different funding models as each Client has different risk tolerances and challenges in enacting whatever funding model is most appropriate to them. In our opinion any funding model that projects the reserve account balance to dip to zero would not be appropriate or fiscally responsible as future emergency financing or deferring projects are typically the outcome. Below are some of the more common funding models utilized:



About Percent Funded

Percent funded is a calculation of how much is in the reserve account versus an ideal amount known as the Fully Funded Balance. The different risk levels associated with the levels of funding are explained in more depth below.



The below video link explains the Percent Funded calculation in more detail:

www.reservedataanalyst.com/pf

About the Fully Funded Balance

The Fully Funded balance is a mathematical calculation that represents the accrued deterioration of a component or a group of components at a specific point in time. It is an answer to the question of "How much should be in a reserve account at a specific point in time?' When the reserve account balance is the same as the Fully Funded Balance the reserve account is considered Fully Funded (100% Funded) at that specific point in time.

The below video link provides a more in-depth explanation of the Fully Funded balance:

www.reservedataanalyst.com/ffb

Calculating Inflation in the Reserve Study

Inflationary factors impact the project costs over time and are the main driving force that must be overcome with diligent and steadfast budgeting towards reserves. Due to the compounding impact of inflation on costs, in a relatively short period of time, a reserve account can be become severely underfunded if it is not considered in the budgeting scenarios. Follow the below link to learn more about how we calculate inflationary factors (escalation of the prices) in the reserve study and some of the tools we use in the process:

www.reservedataanalyst.com/inf

Component Useful Life Estimates

The useful life of components in the reserve study are predominantly based on our experiences with many different types of organizations and their respective repair and replacement cycles with building and site components. Outside of our own experiences working with many organizations over the years there is ample data available online regarding useful life estimates of building and site components. It is important to note that the estimates in the reserve study are based on averages and are not specific to any one property. Follow the below link to view some of the various useful life tables that we utilize:

www.reservedataanalyst.com/ul

Determining Component Project Costs

We utilize many sources for determining what is an appropriate component project cost in the reserve study. These can include:

- Client invoices, bids, estimates
- Our in-house database that is based on the collection of many Client invoices, bids and estimates
- Cost manuals that, when used correctly, are very accurate for average cost figures

It's important to understand that unless we are provided actual project costs based on a Client invoice/bid or estimate we utilize average costs figures that are not specific to any one Client. In the bidding process you will find that there is a ... large difference in price from one vendor to the next for a variety of reasons. We aim to be in the middle of these estimates unless we have Client data to incorporate into the reserve study. Future costs (projections) for the component expenses are simply inflated from current cost based on the inflation assumption in the reserve study. It is important to remember that our current recommendations are based on current project costs and not the inflated number that is utilized in the projections portion of the reserve study. The below link goes into this topic in more detail:

www.reservedataanalyst.com/cost

National Reserve Study Standards

There are two recognized organizations that dictate national reserve study standards in the industry. The Community Association's Institute and the Association of Professional Reserve Analysts award designations to those reserve study professionals that meet education & work experience, adhere to the minimum report requirements, complete ongoing continuing education courses and abide by ethical considerations in the field. The standards for both organizations can be viewed at the links below:

www.reservedataanalyst.com/CAI

www.reservedataanalyst.com/APRA

What Components to Include in the Study?

Reserve expenses for components are major expenses which must be budgeted for in advance to provide the necessary funds in time for their occurrence. Reserve expenses are reasonably predictable both in terms of frequency and cost. They are expenses that when incurred would have a significant impact on the smooth operation of the budgetary process from one year to the next if they were not reserved for in advance.

A common concern when beginning this process is what components are to be included and funded for in the Reserve Study. Nationally recognized CAI Reserve Study Standards as well as APRA Standards of Practice dictate that the reserve components need to meet the following criteria:

- The component is owned and maintained by the Client
- The component expense is not already covered in the Operating Budget
- The component has a limited life expectancy
- The component has a reasonably defined remaining useful life
- As required by local statutes

Ongoing Component Maintenance

While this reserve study has been developed to disclose and inform the Client of the predictable larger long-term project costs related to site and building components, there is also a need to complete regular inspections and repairs to virtually all components on much shorter cycles. These costs would typically be covered in the annual and ongoing Operating Budget (e.g. roof inspections & repairs, spot painting, sprinkler head replacement, door hardware replacement).

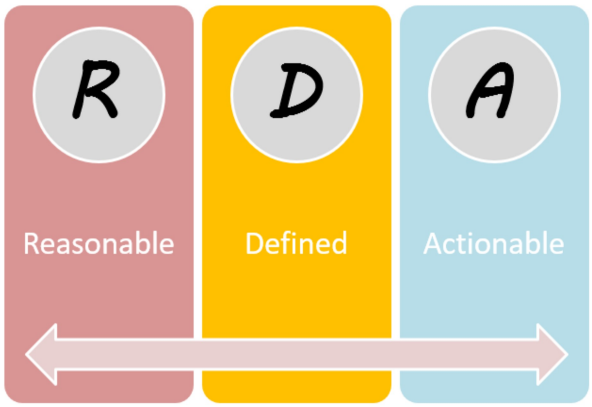
Virtually all the components should receive regular cycles of inspection and repairs either in-house or by a qualified Vendor. Failure to complete ongoing maintenance typically leads to shorter useful lives and higher costs later. RSMeans provides a free link to common building and site component items to inspect at various corresponding time frames.

Many of our Clients have found these PDF checklists helpful in setting up maintenance plans. The link can be found below:

www.reservedataanalyst.com/RSmeans

You Have a Reserve Study Now What?… Goal Setting

Adequately budgeting for reserves is often one of the more difficult tasks our Clients face. Reserve component projects are infrequent and often years down the line, making it very easy to just "deal with it later". We have found those that are most successful with reserve budgeting goals typically follow some simple rules.



1. *Reasonable*
   Your goal should be reasonable and attainable to be successful. In other words, it should stretch your abilities but remain possible. When you set an achievable goal, you may be able to identify previously overlooked opportunities or resources that can bring you closer to it. This often means that transitioning to a more stable financial track will take years of smaller goals being obtained. Severely underfunded reserve accounts typically develop after many years or decades; it's usually not reasonable for the answers to come quick or easily.

2. *Defined*
   Your goal should be clear and specific, otherwise you won't be able to focus your efforts or feel truly motivated to achieve it. When drafting your goal, try to answer the four "W" questions - *What* do we want to accomplish? *Why* is this goal important? *Who* is involved? *When* is this goal set to occur?

3. *Actionable*
   Is your goal possible within the constraints & limitations of very important but often overlooked factors related to statutory requirements and the governing documents? What may seem very "Reasonable" to the Board may very well be illegal or against the governing documents.

Beware setting reserve budgeting goals that someone else has the ultimate control over (e.g. future Boards). For example, "We'll plan to start raising the reserve allocation rate in 3 years". This simply puts the responsibility on someone else and is just another way to "deal with it later". A future Board may have other ideas entirely or could be dealing with an economic downturn during which times raising the allocation rate is extremely difficult.

Timberline Ridge HOA
Site / Building Map

TIMBERLINE RIDGE

- Monument
- Flower Bed
- Blackwell Playground
- Tennis Court Playground
- Tennis Courts
- Circle Park
- Walking Paths & Trails

Excluded Components

Unless noted otherwise the below components have been excluded from funding in this reserve study. Note that the inclusion of any of these items later via a revision or update to this study will impact the funding strategies developed by the Reserve Analyst.

Below a Minimum Threshold

Components which have a collective estimated cost of less than $1,000 have generally been omitted from this reserve study as these smaller expenses will typically be paid for from the Association's Operating Account.

Operating Account Expense

The below components are reportedly paid from the Operating Account and have not been included in this reserve study.

1. Landscaping – (plantings, shrubs, gravel, bark, refurbishment)
2. Large Tree Care
3. Play Structure Safety Surface – Replenish
4. Trail Gravel Replenish
5. Mailbox Structures – Paint
6. Park Signs – Paint/Refurbish

Not Client's Responsibility

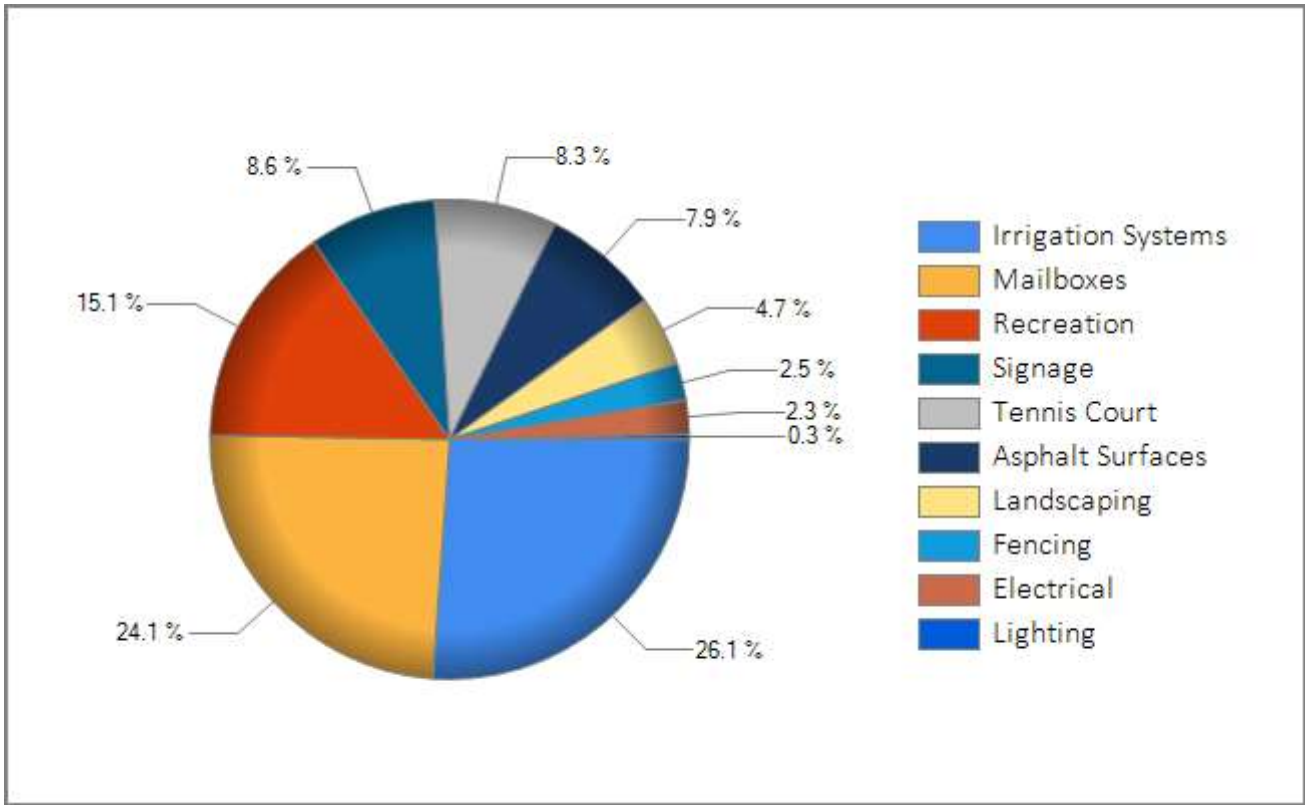
The below components are reportedly not the Client's responsibility per their interpretation of their governing documents. Note that the Reserve Analyst does not interpret governing documents and have excluded items based on the Client' s request and their interpretation of their own governing documents. If there is ambiguity or questions as to what specific wording means in the governing documents, we recommend consulting with a qualified and experienced attorney in the mater.

1. Utility Systems – Water, Sewer & Storm Sewer
2. Retention Ponds

Timberline Ridge HOA
The Component List

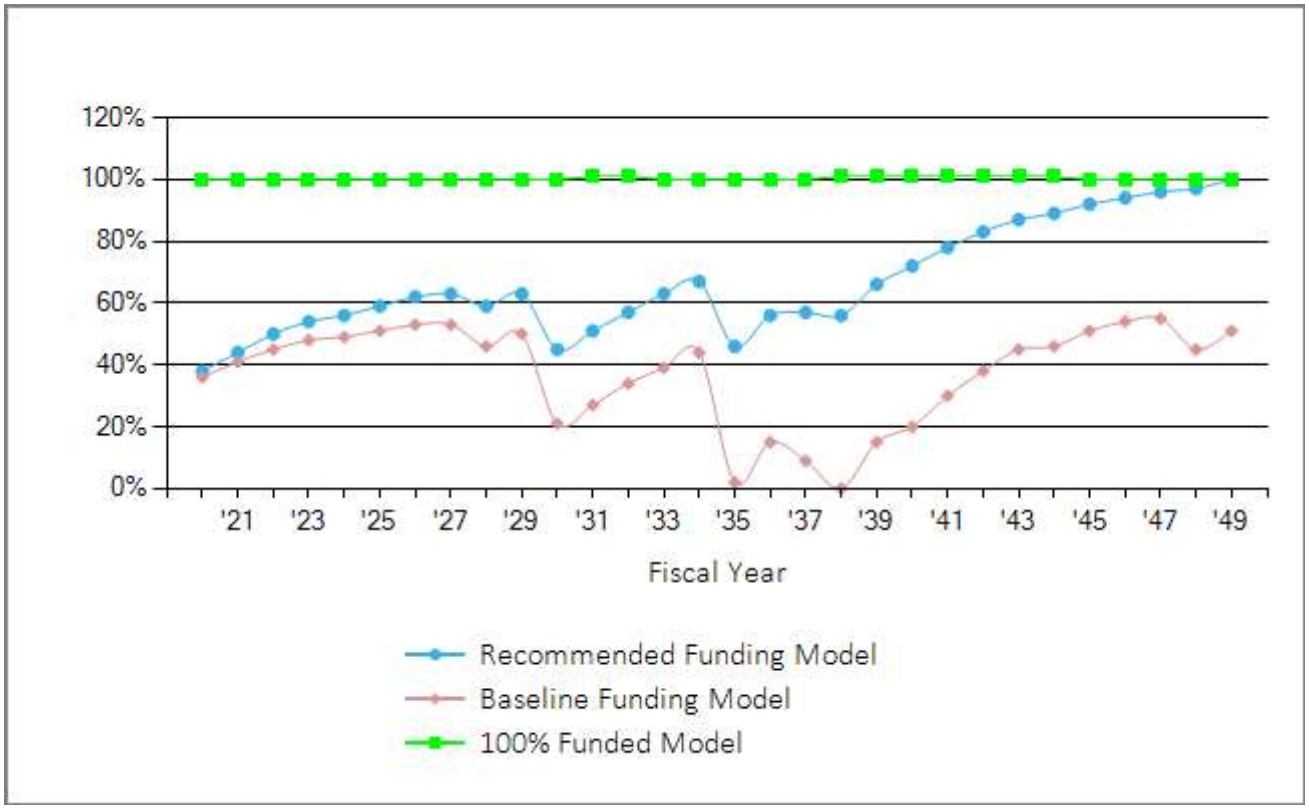
Component Description	Approx. Date In Service	Replacement Year	Useful Life (UL)	Adjustment	Remaining UL	Quantity		Cost Per Qty	Current Cost
Asphalt Pathways - Replace	2018	2038	20	0	18	6,592	sf	5.53	36,467
Backflow Device - Irrigation - Replace	2000	2020	20	0	0	2	ea	1,170.40	2,341
Bark/Mulch - Replenish		*Unfunded*							
Basketball Hoops - Replace	2000	2027	27	0	7	2	ea	2,447.20	4,894
Benches - Replace	2000	2025	25	0	5	4	ea	904.40	3,618
Bollards - Repair Contingency	2000	2030	30	0	10	14	ea	532.00	7,448
Electrical - Modernize	2000	2030	30	0	10	4	ea	2,660.00	10,640
Fence - Split Rail - Replace (2000)	2000	2020	20	0	0	504	lf	20.75	10,457
Fence - Split Rail - Replace (2017)	2017	2037	20	0	17	50	lf	20.75	1,037
Irrigation Controllers - Replace	2016	2031	15	0	11	2	ea	2,766.40	5,533
Irrigation Distribution Systems - Replace	2000	2035	35	0	15	132,732	sf	0.85	112,981
Landscaping - Refurbish		*Unfunded*							
Landscaping - Tree Care		*Unfunded*							
Lights at Monuments - Replace	2017	2032	15	0	12	7	ea	212.80	1,490
Mailbox Kiosk Roofs - Replace	2000	2020	15	0	0	605	sf	6.92	4,184
Mailbox Kiosk Structure - Replace	2000	2030	30	0	10	24	ea	3,724.00	89,376
Mailboxes - Replace	2004	2024	20	0	4	200	ea	90.44	18,088
Metal Cooking Grill - Replace	2008	2023	15	0	3	1	ea	728.84	729
Monuments - Repair Contingency	2000	2030	30	0	10	7	ea	3,724.00	26,068
Pavers - Replace	2000	2035	35	0	15	1,290	sf	17.02	21,961
Picnic Table - Replace	2000	2025	25	0	5	1	ea	1,702.40	1,702
Playground Safety Surface - Replenish		*Unfunded*							
Playground Structures - Replace	2008	2028	20	0	8	2	ea	31,920.00	63,840
Signage - Misc. Metal - Replace		*Unfunded*							
Tennis Court - Resurface	2017	2027	10	0	7	1	ea	18,061.40	18,061
Tennis Court Fence - Replace	2000	2037	40	-3	17	320	lf	47.61	15,236
Trails - Gravel Replenish		*Unfunded*							
Utility Lines		*Unfunded*							
Wood Park Sandblasted Signs - Replace	2000	2030	30	0	10	2	ea	3,192.00	6,384
Total Asset Summary									$462,536

Timberline Ridge HOA
Current Cost by Category Chart



The above chart illustrates the current cost breakdown percentage of the Component Categories in this reserve study (highest percentage components listed at top). Special attention should be given to those component categories which take up a bulk of the % of the current cost as these may require significant planning to adequately budget for their replacement. These large expenses may be well into the future during "Peak Year" cycles. Refer to the Cash Flow Projections and the Annual Expenditure Report for the projected timeline of expected expenditures.

Timberline Ridge HOA
Projected Percent Funded Chart



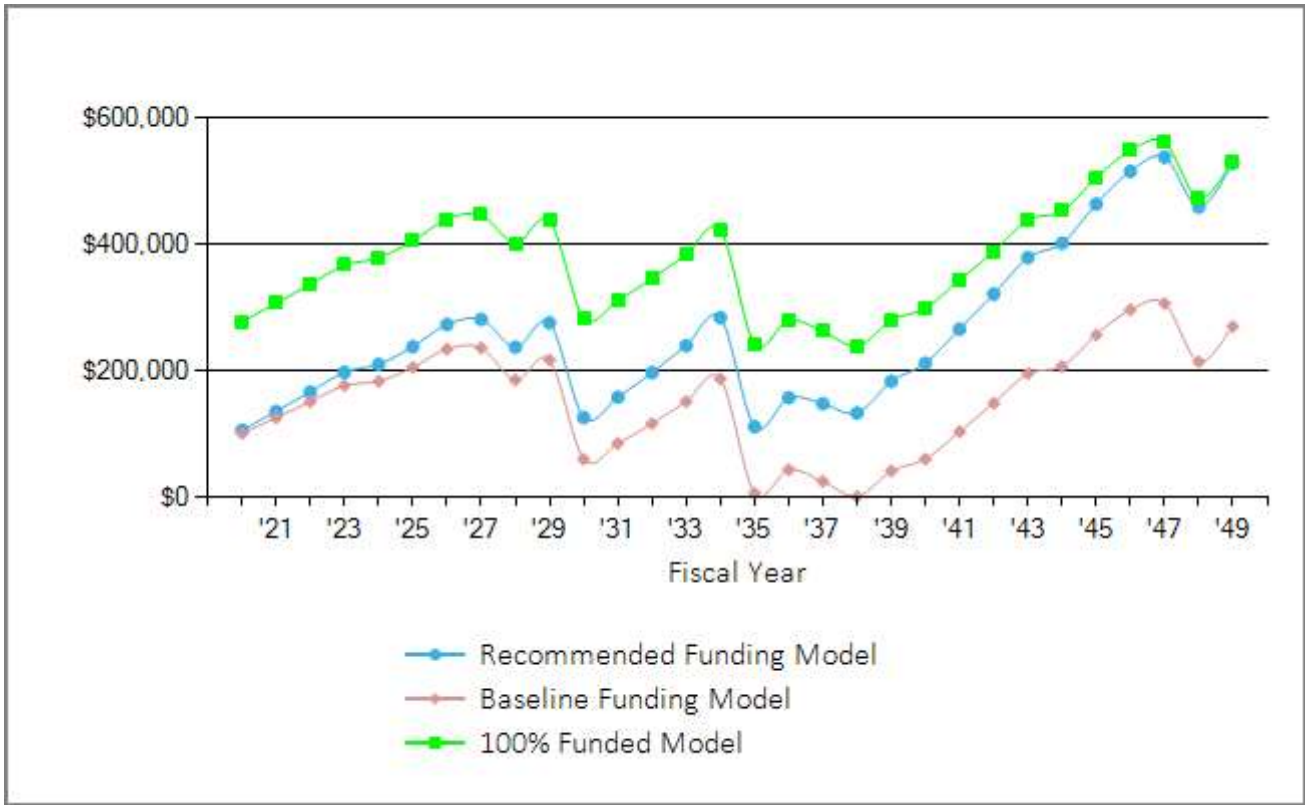
The above chart compares the funding models by the percentage funded levels over the 30-year timeframe of this reserve study, as calculated at the end of each fiscal year.

The *Recommended Funding Model* increase the Client's reserve account Percent Funded Level to 100% funding within the timeframe of this study. Once this 100% funded level is reached it is a good indicator that the Client is on track to meet its future obligations with minimal risk of reliance on emergency financing or having to defer projects that come due.

The *Baseline Funding Model* has only a goal of keeping the reserve account cash positive within the timeframe of the reserve study. This model carries significant risk for reliance on emergency financing and/or having to defer projects due to the common occurrence of components failing earlier than projected or costs increasing more rapidly than projected.

The *100% Funded Model* assumes the reserve account is an average of 100% Funded in each year of the reserve study. This model minimizes risk for reliance on emergency financing and places the reserve account onto a low risk path for budgeting.

Timberline Ridge HOA
Projected Reserve Account Balance Chart



The chart above compares the annual year-end balance of the reserve account for the respective funding models over the 30 years covered in this reserve study. Projected reserve account balances will see large fluctuations from year to year due to projects occurring in any given year.

Timberline Ridge HOA
100% Funded - Summary

Report Date	August 23, 2019
Account Number	16062
Version	Final
Budget Year Beginning	January 1, 2020
Budget Year Ending	December 31, 2020
Total Units	200

Report Parameters

Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.70%
Tax Rate Included in Interest Rate	
2020 Beginning Balance	$94,000

This funding model has a goal of being a minimum of 100% funded, annually, over the timeframe of this reserve study. Allocation rates will fluctuate based on the expenditures projected in any given year. The initial year has a much higher allocation rate than subsequent years as the reserve account is currently underfunded and requires a significant cash injection in the initial fiscal year to elevate the reserve account to a 100% Funded track.

The following page provides the 30-year projections for this funding model.

Full Funding Model 30 Year Summary of Calculations

Required Month Contribution	$16,596.75
Average Net Month Interest Earned	$108.14
Total Month Allocation to Reserves	$16,704.89

Timberline Ridge HOA
100% Funded - Projections

Beginning Balance: $94,000

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Ending Acct. Balance	Fully Funded Balance	Percent Funded
2020	462,536	199,161	1,298	16,982	277,477	277,477	100%
2021	476,412	26,892	2,051		306,420	305,469	100%
2022	490,705	27,699	2,257		336,376	334,890	100%
2023	505,426	28,530	2,465	796	366,574	364,982	100%
2024	520,589	29,386	2,543	20,358	378,145	376,454	100%
2025	536,206	30,267	2,727	6,167	404,972	403,531	100%
2026	552,292	31,175	2,962		439,110	438,437	100%
2027	568,861	32,111	3,007	28,233	445,995	445,995	100%
2028	585,927	32,727	2,688	80,871	400,539	400,266	100%
2029	603,505	33,708	2,941		437,189	437,189	100%
2030	621,610	32,268	1,872	188,035	283,294	282,290	100%
2031	640,258	33,236	2,062	7,659	310,934	309,301	101%
2032	659,466	34,234	2,299	2,124	345,342	343,617	101%
2033	679,250	35,261	2,559		383,162	381,967	100%
2034	699,628	36,318	2,829		422,309	422,309	100%
2035	720,616	34,942	1,576	216,755	242,072	241,470	100%
2036	742,235	35,990	1,837		279,899	279,355	100%
2037	764,502	37,070	1,708	56,751	261,926	260,790	100%
2038	787,437	38,182	1,540	63,323	238,324	235,844	101%
2039	811,060	39,327	1,823		279,475	276,347	101%
2040	835,392	40,507	1,954	23,114	298,822	295,259	101%
2041	860,454	41,722	2,257		342,802	339,580	101%
2042	886,267	42,974	2,571		388,346	386,293	101%
2043	912,855	46,690	2,905		437,941	435,505	101%
2044	940,241	48,090	3,000	36,769	452,262	449,448	101%
2045	968,448	49,533	3,364		505,159	502,845	100%
2046	997,502	51,019	3,658	11,932	547,904	546,752	100%
2047	1,027,427	52,550	3,742	43,428	560,767	560,767	100%
2048	1,058,249	54,126	3,118	146,061	471,950	470,762	100%
2049	1,089,997	55,750	3,526		531,226	529,808	100%

Timberline Ridge HOA
Recommended Funding - Summary

Report Date	August 23, 2019
Account Number	16062
Version	Final
Budget Year Beginning	January 1, 2020
Budget Year Ending	December 31, 2020
Total Units	200

Report Parameters

Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.70%
Tax Rate Included in Interest Rate	
2020 Beginning Balance	$94,000

We have developed a funding plan which will help steer the reserve account into a high funded range within the 30-year timeframe of this reserve study. This Recommended Funding Model requires the Client to allocate the recommended allocation amount into the reserve account with annual increases thereafter. In the following pages you will find the recommended allocation rates to the reserve account, annual projected expenditures and the percent funded of the reserve account if following this Recommended Funding Model.

This Recommended Funding Plan Considers 4 Basic Principles:

1. There are adequate reserves when needed.
2. The budget should remain stable but increasing to offset inflationary factors.
3. The costs are fairly distributed over time.
4. The funding plan must allow the Client to be fiscally responsible.

The following page provides the 30-year projections for this funding model.

Recommended Funding Model Summary of Calculations

Required Month Contribution	$2,333.33
Average Net Month Interest Earned	$53.94
Total Month Allocation to Reserves	$2,387.27

Timberline Ridge HOA
Recommended Funding - Projections

Beginning Balance: $94,000

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Ending Acct. Balance	Fully Funded Balance	Percent Funded
2020	462,536	28,000	647	16,982	105,665	277,477	38%
2021	476,412	28,840	852		135,357	305,469	44%
2022	490,705	29,705	1,063		166,126	334,890	50%
2023	505,426	30,596	1,277	796	197,203	364,982	54%
2024	520,589	31,514	1,362	20,358	209,720	376,454	56%
2025	536,206	32,460	1,553	6,167	237,566	403,531	59%
2026	552,292	33,433	1,795		272,794	438,437	62%
2027	568,861	34,436	1,848	28,233	280,846	445,995	63%
2028	585,927	35,470	1,539	80,871	236,984	400,266	59%
2029	603,505	36,534	1,803		275,321	437,189	63%
2030	621,610	37,630	756	188,035	125,671	282,290	45%
2031	640,258	38,759	976	7,659	157,747	309,301	51%
2032	659,466	39,921	1,245	2,124	196,789	343,617	57%
2033	679,250	41,119	1,538		239,446	381,967	63%
2034	699,628	42,353	1,842		283,641	422,309	67%
2035	720,616	43,623	635	216,755	111,145	241,470	46%
2036	742,235	44,932	951		157,028	279,355	56%
2037	764,502	46,280	880	56,751	147,437	260,790	57%
2038	787,437	47,668	772	63,323	132,554	235,844	56%
2039	811,060	49,098	1,117		182,769	276,347	66%
2040	835,392	50,571	1,313	23,114	211,539	295,259	72%
2041	860,454	52,088	1,683		265,311	339,580	78%
2042	886,267	53,651	2,067		321,029	386,293	83%
2043	912,855	55,260	2,464		378,754	435,505	87%
2044	940,241	56,918	2,618	36,769	401,521	449,448	89%
2045	968,448	58,626	3,042		463,189	502,845	92%
2046	997,502	60,385	3,398	11,932	515,040	546,752	94%
2047	1,027,427	62,196	3,548	43,428	537,356	560,767	96%
2048	1,058,249	64,062	2,991	146,061	458,348	470,762	97%
2049	1,089,997	65,984	3,469		527,801	529,808	100%

Timberline Ridge HOA
Baseline Funding - Summary

Report Date	August 23, 2019
Account Number	16062
Version	Final
Budget Year Beginning	January 1, 2020
Budget Year Ending	December 31, 2020
Total Units	200

Report Parameters

Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.70%
Tax Rate Included in Interest Rate	
2020 Beginning Balance	$94,000

The Baseline Funding Model is considered a bare minimum approach which has a goal of keeping the reserve account balance above $0 within the 30-year timeframe of this reserve study and does not consider projected expenses that fall outside of the 30-year timeframe of the reserve study.

This funding model carries a higher risk for reliance on emergency financing specifically in years when large component expenses occur earlier than projected or costs see significant increases. Additionally, in the future when longer life components come into the 30-year timeframe of future reserve studies their projected expenditures will have a significant impact on the allocation requirements to keep the reserve account cash positive.

The following page provides the 30-year projections for this funding model.

Baseline Threshold Funding Model Summary of Calculations

Required Month Contribution	$1,920.65
Average Net Month Interest Earned	$52.37
Total Month Allocation to Reserves	$1,973.02

Timberline Ridge HOA
Baseline Funding - Projections

Beginning Balance: $94,000

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Ending Acct. Balance	Fully Funded Balance	Percent Funded
2020	462,536	23,048	628	16,982	100,694	277,477	36%
2021	476,412	23,739	797		125,231	305,469	41%
2022	490,705	24,451	972		150,655	334,890	45%
2023	505,426	25,185	1,148	796	176,191	364,982	48%
2024	520,589	25,940	1,193	20,358	182,966	376,454	49%
2025	536,206	26,719	1,343	6,167	204,861	403,531	51%
2026	552,292	27,520	1,543		233,924	438,437	53%
2027	568,861	28,346	1,552	28,233	235,590	445,995	53%
2028	585,927	29,196	1,197	80,871	185,113	400,266	46%
2029	603,505	30,072	1,414		216,599	437,189	50%
2030	621,610	30,974	318	188,035	59,856	282,290	21%
2031	640,258	31,904	488	7,659	84,589	309,301	27%
2032	659,466	32,861	704	2,124	116,030	343,617	34%
2033	679,250	33,846	943		150,819	381,967	39%
2034	699,628	34,862	1,192		186,873	422,309	44%
2035	720,616	35,908		216,755	6,026	241,470	2%
2036	742,235	36,985	183		43,194	279,355	15%
2037	764,502	38,094	50	56,751	24,587	260,790	9%
2038	787,437	39,237		63,323	501	235,844	0%
2039	811,060	40,414	157		41,072	276,347	15%
2040	835,392	41,627	284	23,114	59,869	295,259	20%
2041	860,454	42,876	583		103,328	339,580	30%
2042	886,267	44,162	893		148,383	386,293	38%
2043	912,855	45,487	1,215		195,085	435,505	45%
2044	940,241	46,851	1,290	36,769	206,457	449,448	46%
2045	968,448	48,257	1,633		256,347	502,845	51%
2046	997,502	49,705	1,905	11,932	296,025	546,752	54%
2047	1,027,427	51,196	1,968	43,428	305,761	560,767	55%
2048	1,058,249	52,732	1,322	146,061	213,753	470,762	45%
2049	1,089,997	54,314	1,707		269,774	529,808	51%

Timberline Ridge HOA
Current Funding - Summary

Report Date	August 23, 2019
Account Number	16062
Version	Final
Budget Year Beginning	January 1, 2020
Budget Year Ending	December 31, 2020
Total Units	200

Report Parameters

Inflation	3.00%
Annual Contribution Increase	3.00%
Interest Rate on Reserve Deposit	0.70%
Tax Rate Included in Interest Rate	
2020 Beginning Balance	$94,000

The Current Funding Model is based on the reserve allocation data supplied by the Client; it has not been independently verified and is assumed to be correct.

The following page provides the 30-year projections for this funding model. It is assumed the reserve allocation rate will have annual increases to offset inflationary factors.

Current Assessment Funding Model Summary of Calculations

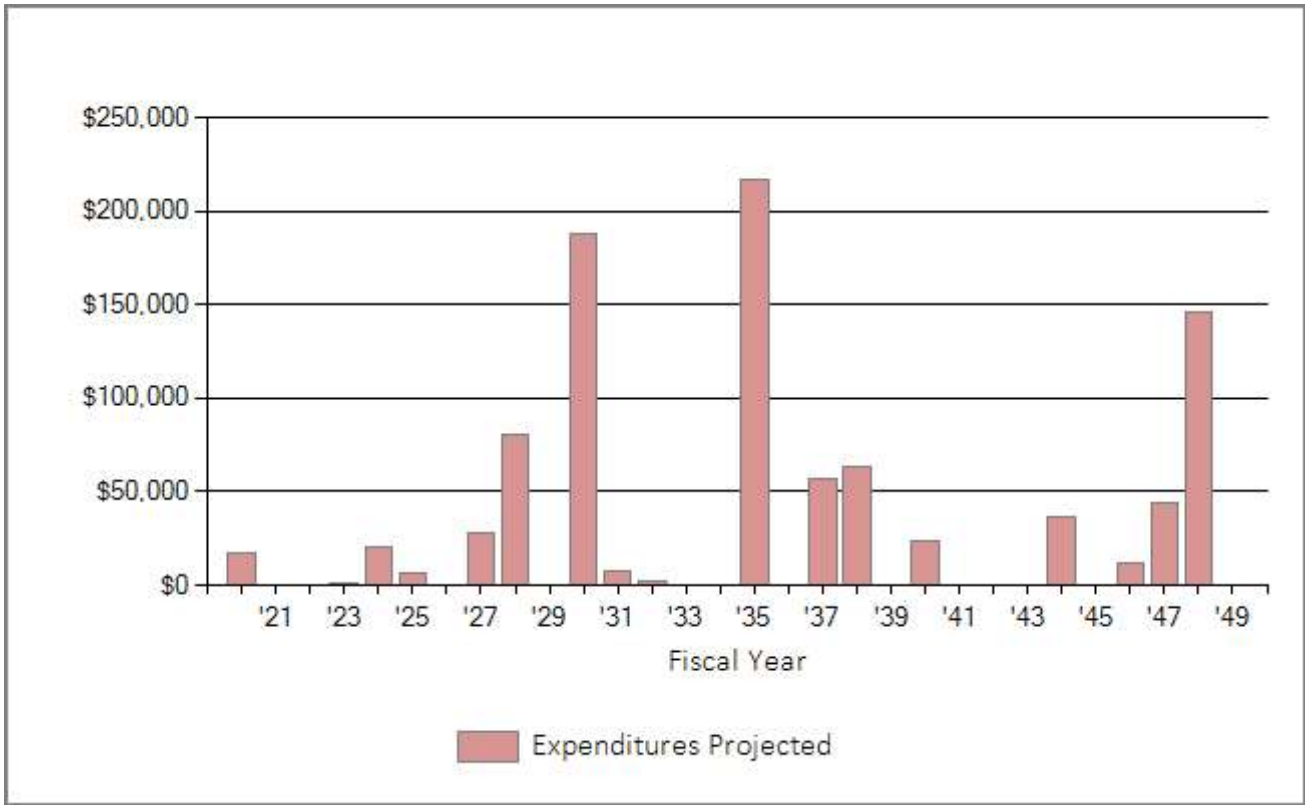
Required Month Contribution	$1,166.67
Average Net Month Interest Earned	$49.50
Total Month Allocation to Reserves	$1,216.17

Timberline Ridge HOA
Current Funding - Projections

Beginning Balance: $94,000

Year	Replacement Cost	Reserve Contribution	Net Interest Earned	Reserve Expenditures	Ending Acct. Balance	Fully Funded Balance	Percent Funded
2020	462,536	14,000	594	16,982	91,612	277,477	33%
2021	476,412	14,420	698		106,730	305,469	35%
2022	490,705	14,853	806		122,389	334,890	37%
2023	505,426	15,298	912	796	137,803	364,982	38%
2024	520,589	15,757	885	20,358	134,086	376,454	36%
2025	536,206	16,230	960	6,167	145,109	403,531	36%
2026	552,292	16,717	1,083		162,908	438,437	37%
2027	568,861	17,218	1,011	28,233	152,905	445,995	34%
2028	585,927	17,735	573	80,871	90,342	400,266	23%
2029	603,505	18,267	704		109,313	437,189	25%
2030	621,610	18,815		188,035	-59,908	282,290	
2031	640,258	19,379		7,659	-48,187	309,301	
2032	659,466	19,961		2,124	-30,351	343,617	
2033	679,250	20,559			-9,791	381,967	
2034	699,628	21,176	12		11,397	422,309	3%
2035	720,616	21,812		216,755	-183,546	241,470	
2036	742,235	22,466			-161,080	279,355	
2037	764,502	23,140		56,751	-194,692	260,790	
2038	787,437	23,834		63,323	-234,181	235,844	
2039	811,060	24,549			-209,632	276,347	
2040	835,392	25,286		23,114	-207,460	295,259	
2041	860,454	26,044			-181,416	339,580	
2042	886,267	26,825			-154,591	386,293	
2043	912,855	27,630			-126,961	435,505	
2044	940,241	28,459		36,769	-135,271	449,448	
2045	968,448	29,313			-105,958	502,845	
2046	997,502	30,192		11,932	-87,697	546,752	
2047	1,027,427	31,098		43,428	-100,028	560,767	
2048	1,058,249	32,031		146,061	-214,058	470,762	
2049	1,089,997	32,992			-181,066	529,808	

Timberline Ridge HOA
Projected Expenditures Chart



The above chart provides a visual of the reserve account projected expenditures over the 30 years covered in this study. We suggest making a note of large expenditure years (peak years) when there will be significant projected expenditures related to one or more component projects that will require repair/replacement. These large but infrequent component expenses during “peak” years are typically the most difficult to budget for as they are often overlooked or ignored due to the perception that the expenses are far in the future and there will be time to budget for them later.

Timberline Ridge HOA
Projected Expenditures Report

Description		Expenditures
Replacement Year 2020		
1002	Backflow Device - Irrigation - Replace	2,341
1009	Fence - Split Rail - Replace (2000)	10,457
1015	Mailbox Kiosk Roofs - Replace	4,184
Total for 2020		**$16,982**
No Replacement in 2021		
No Replacement in 2022		
Replacement Year 2023		
1018	Metal Cooking Grill - Replace	796
Total for 2023		**$796**
Replacement Year 2024		
1017	Mailboxes - Replace	20,358
Total for 2024		**$20,358**
Replacement Year 2025		
1005	Benches - Replace	4,194
1021	Picnic Table - Replace	1,974
Total for 2025		**$6,167**
No Replacement in 2026		
Replacement Year 2027		
1004	Basketball Hoops - Replace	6,019
1025	Tennis Court - Resurface	22,213
Total for 2027		**$28,233**
Replacement Year 2028		
1023	Playground Structures - Replace	80,871
Total for 2028		**$80,871**
No Replacement in 2029		
Replacement Year 2030		
1006	Bollards - Repair Contingency	10,009

Description		Expenditures
Replacement Year 2030 continued...		
1007	Electrical - Modernize	14,299
1016	Mailbox Kiosk Structure - Replace	120,114
1019	Monuments - Repair Contingency	35,033
1029	Wood Park Sandblasted Signs - Replace	8,580
Total for 2030		**$188,035**
Replacement Year 2031		
1010	Irrigation Controllers - Replace	7,659
Total for 2031		**$7,659**
Replacement Year 2032		
1014	Lights at Monuments - Replace	2,124
Total for 2032		**$2,124**
No Replacement in 2033		
No Replacement in 2034		
Replacement Year 2035		
1011	Irrigation Distribution Systems - Replace	176,021
1015	Mailbox Kiosk Roofs - Replace	6,519
1020	Pavers - Replace	34,214
Total for 2035		**$216,755**
No Replacement in 2036		
Replacement Year 2037		
1008	Fence - Split Rail - Replace (2017)	1,715
1025	Tennis Court - Resurface	29,853
1026	Tennis Court Fence - Replace	25,184
Total for 2037		**$56,751**
Replacement Year 2038		
1001	Asphalt Pathways - Replace	62,083
1018	Metal Cooking Grill - Replace	1,241
Total for 2038		**$63,323**

Timberline Ridge HOA
Projected Expenditures Report

Description		Expenditures
No Replacement in 2039		
Replacement Year 2040		
1002	Backflow Device - Irrigation - Replace	4,228
1009	Fence - Split Rail - Replace (2000)	18,886
Total for 2040		**$23,114**
No Replacement in 2041		
No Replacement in 2042		
No Replacement in 2043		
Replacement Year 2044		
1017	Mailboxes - Replace	36,769
Total for 2044		**$36,769**
No Replacement in 2045		
Replacement Year 2046		
1010	Irrigation Controllers - Replace	11,932
Total for 2046		**$11,932**
Replacement Year 2047		
1014	Lights at Monuments - Replace	3,309
1025	Tennis Court - Resurface	40,120
Total for 2047		**$43,428**
Replacement Year 2048		
1023	Playground Structures - Replace	146,061
Total for 2048		**$146,061**
No Replacement in 2049		

Timberline Ridge HOA
Spreadsheet - Component Expenditures

		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Beginning Balance		94,000	105,665	135,357	166,126	197,203	209,720	237,566	272,794	280,846	236,984
Annual Reserve Account Contribution		28,000	28,840	29,705	30,596	31,514	32,460	33,433	34,436	35,470	36,534
Interest Earned		647	852	1,063	1,277	1,362	1,553	1,795	1,848	1,539	1,803
Expenditures		16,982			796	20,358	6,167		28,233	80,871	
Fully Funded Balance		277,477	305,469	334,890	364,982	376,454	403,531	438,437	445,995	400,266	437,189
Percent Funded		38%	44%	50%	54%	56%	59%	62%	63%	59%	63%
Ending Reserve Account Balance		105,665	135,357	166,126	197,203	209,720	237,566	272,794	280,846	236,984	275,321
ID	**Description**										
1001	Asphalt Pathways - Replace										
1002	Backflow Device - Irrigation - Replace	2,341									
1003	Bark/Mulch - Replenish	*Unfunded*									
1004	Basketball Hoops - Replace								6,019		
1005	Benches - Replace						4,194				
1006	Bollards - Repair Contingency										
1007	Electrical - Modernize										
1009	Fence - Split Rail - Replace (2000)	10,457									
1008	Fence - Split Rail - Replace (2017)										
1010	Irrigation Controllers - Replace										
1011	Irrigation Distribution Systems - Replace										
1012	Landscaping - Refurbish	*Unfunded*									
1013	Landscaping - Tree Care	*Unfunded*									
1014	Lights at Monuments - Replace										
1015	Mailbox Kiosk Roofs - Replace	4,184									
1016	Mailbox Kiosk Structure - Replace										
1017	Mailboxes - Replace					20,358					
1018	Metal Cooking Grill - Replace				796						
1019	Monuments - Repair Contingency										
1020	Pavers - Replace										
1021	Picnic Table - Replace						1,974				
1022	Playground Safety Surface - Replenish	*Unfunded*									
1023	Playground Structures - Replace									80,871	
1024	Signage - Misc. Metal - Replace	*Unfunded*									

Timberline Ridge HOA
Spreadsheet - Component Expenditures

ID	Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1025	Tennis Court - Resurface								22,213		
1026	Tennis Court Fence - Replace										
1027	Trails - Gravel Replenish	*Unfunded*									
1028	Utility Lines	*Unfunded*									
1029	Wood Park Sandblasted Signs - Replace										
Year Total:		**16,982**			**796**	**20,358**	**6,167**		**28,233**	**80,871**	

Timberline Ridge HOA
Spreadsheet - Component Expenditures

		2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Beginning Balance		275,321	125,671	157,747	196,789	239,446	283,641	111,145	157,028	147,437	132,554
Annual Reserve Account Contribution		37,630	38,759	39,921	41,119	42,353	43,623	44,932	46,280	47,668	49,098
Interest Earned		756	976	1,245	1,538	1,842	635	951	880	772	1,117
Expenditures		188,035	7,659	2,124			216,755		56,751	63,323	
Fully Funded Balance		282,290	309,301	343,617	381,967	422,309	241,470	279,355	260,790	235,844	276,347
Percent Funded		45%	51%	57%	63%	67%	46%	56%	57%	56%	66%
Ending Reserve Account Balance		125,671	157,747	196,789	239,446	283,641	111,145	157,028	147,437	132,554	182,769
ID	**Description**										
1001	Asphalt Pathways - Replace									62,083	
1002	Backflow Device - Irrigation - Replace										
1003	Bark/Mulch - Replenish	*Unfunded*									
1004	Basketball Hoops - Replace										
1005	Benches - Replace										
1006	Bollards - Repair Contingency	10,009									
1007	Electrical - Modernize	14,299									
1009	Fence - Split Rail - Replace (2000)										
1008	Fence - Split Rail - Replace (2017)								1,715		
1010	Irrigation Controllers - Replace		7,659								
1011	Irrigation Distribution Systems - Replace						176,021				
1012	Landscaping - Refurbish	*Unfunded*									
1013	Landscaping - Tree Care	*Unfunded*									
1014	Lights at Monuments - Replace			2,124							
1015	Mailbox Kiosk Roofs - Replace						6,519				
1016	Mailbox Kiosk Structure - Replace	120,114									
1017	Mailboxes - Replace										
1018	Metal Cooking Grill - Replace									1,241	
1019	Monuments - Repair Contingency	35,033									
1020	Pavers - Replace						34,214				
1021	Picnic Table - Replace										
1022	Playground Safety Surface - Replenish	*Unfunded*									
1023	Playground Structures - Replace										
1024	Signage - Misc. Metal - Replace	*Unfunded*									

Timberline Ridge HOA
Spreadsheet - Component Expenditures

ID	Description	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
1025	Tennis Court - Resurface								29,853		
1026	Tennis Court Fence - Replace								25,184		
1027	Trails - Gravel Replenish	*Unfunded*									
1028	Utility Lines	*Unfunded*									
1029	Wood Park Sandblasted Signs - Replace	8,580									
Year Total:		**188,035**	**7,659**	**2,124**			**216,755**		**56,751**	**63,323**	

Timberline Ridge HOA
Spreadsheet - Component Expenditures

	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Beginning Balance	182,769	211,539	265,311	321,029	378,754	401,521	463,189	515,040	537,356	458,348
Annual Reserve Account Contribution	50,571	52,088	53,651	55,260	56,918	58,626	60,385	62,196	64,062	65,984
Interest Earned	1,313	1,683	2,067	2,464	2,618	3,042	3,398	3,548	2,991	3,469
Expenditures	23,114				36,769		11,932	43,428	146,061	
Fully Funded Balance	295,259	339,580	386,293	435,505	449,448	502,845	546,752	560,767	470,762	529,808
Percent Funded	72%	78%	83%	87%	89%	92%	94%	96%	97%	100%
Ending Reserve Account Balance	211,539	265,311	321,029	378,754	401,521	463,189	515,040	537,356	458,348	527,801
ID **Description**										
1001 Asphalt Pathways - Replace										
1002 Backflow Device - Irrigation - Replace	4,228									
1003 Bark/Mulch - Replenish	*Unfunded*									
1004 Basketball Hoops - Replace										
1005 Benches - Replace										
1006 Bollards - Repair Contingency										
1007 Electrical - Modernize										
1009 Fence - Split Rail - Replace (2000)	18,886									
1008 Fence - Split Rail - Replace (2017)										
1010 Irrigation Controllers - Replace							11,932			
1011 Irrigation Distribution Systems - Replace										
1012 Landscaping - Refurbish	*Unfunded*									
1013 Landscaping - Tree Care	*Unfunded*									
1014 Lights at Monuments - Replace								3,309		
1015 Mailbox Kiosk Roofs - Replace										
1016 Mailbox Kiosk Structure - Replace										
1017 Mailboxes - Replace					36,769					
1018 Metal Cooking Grill - Replace										
1019 Monuments - Repair Contingency										
1020 Pavers - Replace										
1021 Picnic Table - Replace										
1022 Playground Safety Surface - Replenish	*Unfunded*									
1023 Playground Structures - Replace									146,061	
1024 Signage - Misc. Metal - Replace	*Unfunded*									

Timberline Ridge HOA
Spreadsheet - Component Expenditures

ID	Description	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
1025	Tennis Court - Resurface								40,120		
1026	Tennis Court Fence - Replace										
1027	Trails - Gravel Replenish	*Unfunded*									
1028	Utility Lines	*Unfunded*									
1029	Wood Park Sandblasted Signs - Replace										
Year Total:		**23,114**				**36,769**		**11,932**	**43,428**	**146,061**	

Timberline Ridge HOA
Fully Funded Balance Calculations

Description	Remaining Life	Replacement Year	Assigned Reserves	Fully Funded Reserves
Backflow Device - Irrigation - Replace	0	2020	2,341	2,341
Mailbox Kiosk Roofs - Replace	0	2020	4,184	4,184
Fence - Split Rail - Replace (2000)	0	2020	10,457	10,457
Metal Cooking Grill - Replace	3	2023	583	583
Mailboxes - Replace	4	2024	14,470	14,470
Picnic Table - Replace	5	2025	1,362	1,362
Benches - Replace	5	2025	2,894	2,894
Basketball Hoops - Replace	7	2027	3,625	3,625
Tennis Court - Resurface	7	2027	5,418	5,418
Playground Structures - Replace	8	2028	38,304	38,304
Wood Park Sandblasted Signs - Replace	10	2030	4,256	4,256
Bollards - Repair Contingency	10	2030	4,965	4,965
Electrical - Modernize	10	2030	* 1,139	7,093
Monuments - Repair Contingency	10	2030		17,379
Mailbox Kiosk Structure - Replace	10	2030		59,584
Irrigation Controllers - Replace	11	2031		1,475
Lights at Monuments - Replace	12	2032		298
Pavers - Replace	15	2035		12,549
Irrigation Distribution Systems - Replace	15	2035		64,561
Fence - Split Rail - Replace (2017)	17	2037		156
Tennis Court Fence - Replace	17	2037		8,236
Asphalt Pathways - Replace	18	2038		3,647
Bark/Mulch - Replenish		Unfunded		
Landscaping - Refurbish		Unfunded		
Landscaping - Tree Care		Unfunded		
Playground Safety Surface - Replenish		Unfunded		
Signage - Misc. Metal - Replace		Unfunded		
Trails - Gravel Replenish		Unfunded		
Utility Lines		Unfunded		

Timberline Ridge HOA
Fully Funded Balance Calculations

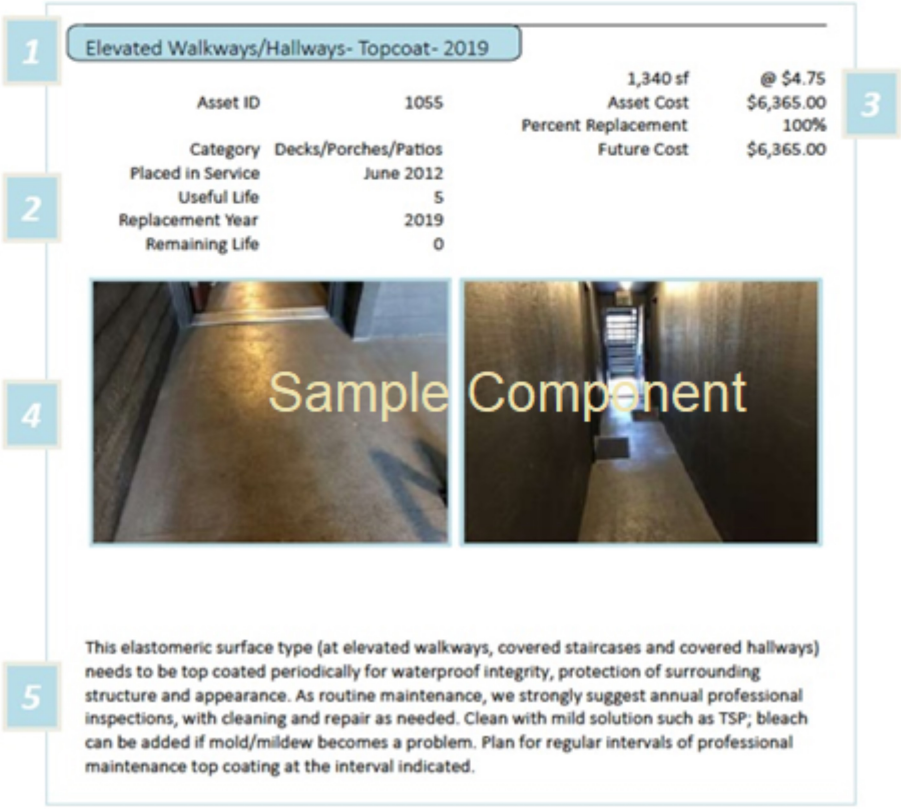
Description	Remaining Life	Replacement Year	Assigned Reserves	Fully Funded Reserves
Total Asset Summary			$94,000	$267,838

Percent Fully Funded	35%
Current Average Liability per Unit (Total Units: 200)	-$869

'' Indicates Partially Funded*

Timberline Ridge HOA
About the Component Detail Reports Section

In the following Component Details Section of this reserve study you will find each component that has been listed within the Component List. This section has more detailed information for each component and reviewing it will often answer questions that arise regarding specific components within this reserve study. Below you will find an explanation of what and where this information is located.



1. Component Name and next Replacement Year as well as a unique Asset ID to cross reference with other sections within this reserve study.

2. This area has the category of the component, estimated placed in-service date (when last installed), the estimated useful life of the component (estimate of how long the component will last), the next replacement year in this reserve study and the remaining useful life (how many years before replacement is estimated to occur).

3. The area has the total measurement/unit count of the component, the cost per unit, the total asset cost (unit count X unit cost), the percent replacement (amount funded to be replaced in a cycle), and the future cost (estimated cost at the next replacement date).

4. Pictures of the component are included for Level I studies unless the Client has requested fewer pages in the study in which case we will omit them.

5. Specific comments about this component which can include explanations for adjustments to the useful life, phasing, maintenance of the component, Vendor recommendations, etc.

Lights at Monuments - Replace - 2032

Asset ID	1014	7 ea	@ $212.80
		Asset Cost	$1,489.60
		Percent Replacement	100%
	Lighting	Future Cost	$2,123.81
Placed in Service	June 2017		
Useful Life	15		
Replacement Year	2032		
Remaining Life	12		

Monument lights are newer LED's and appear to be deteriorating at a rate typical of their age. We recommend budgeting for replacement at the timeframe indicated due to constant exposure to the elements and deterioration of the component over time.

Mailbox Kiosk Roofs - Replace - 2020

		605 sf	@ $6.92
Asset ID	1015	Asset Cost	$4,184.18
		Percent Replacement	100%
	Mailboxes	Future Cost	$4,184.18
Placed in Service	June 2000		
Useful Life	15		
Replacement Year	2020		
Remaining Life	0		

Mailbox kiosk roofs are in fair to poor condition. Damages and missing shingles noted. Some vehicle damage likely.

Mailbox Kiosk Structure - Replace - 2030

		24 ea	@ $3,724.00
Asset ID	1016	Asset Cost	$89,376.00
		Percent Replacement	100%
	Mailboxes	Future Cost	$120,113.87
Placed in Service	June 2000		
Useful Life	30		
Replacement Year	2030		
Remaining Life	10		

Wood mailbox kiosks are in variable condition. Board reported that these were recently refurbished to repair damaged wood. Inspection revealed structures have wood and composition roofs in poor condition, with damaged and missing shingles noted. These wood structures should be inspected and painted/stained as needed paid from the Operating account. Over time these structures will need refurbishment including roof replacement, wood repairs and stability enforcement to maximize their service lives. We recommend preparing for eventual total replacement of these wood structures.

Mailboxes - Replace - 2024

		200 ea	@ $90.44
Asset ID	1017	Asset Cost	$18,088.00
		Percent Replacement	100%
	Mailboxes	Future Cost	$20,358.20
Placed in Service	June 2004		
Useful Life	20		
Replacement Year	2024		
Remaining Life	4		

These are reported to have been installed in 2004. Appear to be deteriorating at a rate typical of their age based on our visual inspection of this component. As routine maintenance, inspect regularly, clean by wiping down for appearance, change lock cylinders, lubricate hinges and repair as needed from

Mailboxes - Replace continued...

operating budget. Best to plan for total replacement at roughly the time frame indicated due to constant usage and wear over time.

Backflow Device - Irrigation - Replace - 2020

		2 ea	@ $1,170.40
Asset ID	1002	Asset Cost	$2,340.80
		Percent Replacement	100%
	Irrigation Systems	Future Cost	$2,340.80
Placed in Service	June 2000		
Useful Life	20		
Replacement Year	2020		
Remaining Life	0		

As routine maintenance, inspect regularly, test system, repair as needed from operating budget. We recommend funding for this component at the time frame indicated.

Fence - Split Rail - Replace (2000) - 2020

		504 lf	@ $20.75
Asset ID	1009	Asset Cost	$10,456.99
		Percent Replacement	100%
	Fencing	Future Cost	$10,456.99
Placed in Service	June 2000		
Useful Life	20		
Replacement Year	2020		
Remaining Life	0		

Split rail fencing is in fair to poor condition. Areas of prior repair and damage noted. Although rustic looking by design, this type of fencing will eventually need to be replaced due to constant weathering and exposure. Inspect regularly and repair as needed from operating budget. Plan for regular intervals of replacement at roughly the time frame indicated below.

Note: assumed to be left to weather naturally; no funding for seal/stain herein.

Benches - Replace - 2025

		4 ea	@ $904.40
Asset ID	1005	Asset Cost	$3,617.60
		Percent Replacement	100%
	Recreation	Future Cost	$4,193.79
Placed in Service	June 2000		
Useful Life	25		
Replacement Year	2025		
Remaining Life	5		

Wood and metal benches are in fair condition. One bench was damaged at the time of inspection. Individual board replacement and staining regularly can maximize the service life of these benches. The metal will eventually corrode requiring full replacement.

Metal Cooking Grill - Replace - 2023

		1 ea	@ $728.84
Asset ID	1018	Asset Cost	$728.84
		Percent Replacement	100%
	Recreation	Future Cost	$796.42
Placed in Service	June 2008		
Useful Life	15		
Replacement Year	2023		
Remaining Life	3		

Metal cooking grill is in fair condition. Some surface rust noted. Plan for eventual replacement as these structures will deteriorate from the heat as well as the exposure to the elements.

Picnic Table - Replace - 2025

		1 ea	@ $1,702.40
Asset ID	1021	Asset Cost	$1,702.40
		Percent Replacement	100%
	Recreation	Future Cost	$1,973.55
Placed in Service	June 2000		
Useful Life	25		
Replacement Year	2025		
Remaining Life	5		

The Picnic table appear to be deteriorating at a rate typical of their age. We recommend for eventual replacement at the time frame indicated due to constant exposure. We recommend cleaning and inspecting annually - paint/stain as needed paid for from the Operating account.

Basketball Hoops - Replace - 2027

		2 ea	@ $2,447.20
Asset ID	1004	Asset Cost	$4,894.40
		Percent Replacement	100%
	Tennis Court	Future Cost	$6,019.49
Placed in Service	June 2000		
Useful Life	27		
Replacement Year	2027		
Remaining Life	7		

The tennis court backboard appears to be in fair condition. No major damage noted. Inspect, repair & paint as needed annually from the Operating budget. We recommend budgeting for replacement at the timeframe indicated to cycle with the next tennis court resurfacing.

Tennis Court - Resurface - 2027

		1 ea	@ $18,061.40
Asset ID	1025	Asset Cost	$18,061.40
		Percent Replacement	100%
	Tennis Court	Future Cost	$22,213.24
Placed in Service	June 2017		
Useful Life	10		
Replacement Year	2027		
Remaining Life	7		

The tennis court was resurfaced in 2017 for approx. $16K. For the safety and playability of the tennis court these surfaces should be inspected annually, and repairs made as needed between resurfacing projects. When tennis court do not receive regular cycles of resurfacing water often causes extensive damage as it seeps into the cracks on the court and causes underlying deterioration of the aggregate base. If nothing is done, then eventually a resurfacing project would not be possible (if the base is in below average condition) and the Community will need to budget for total replacement of the court at a much higher cost.

Playground Structures - Replace - 2028

		2 ea	@ $31,920.00
Asset ID	1023	Asset Cost	$63,840.00
		Percent Replacement	100%
	Recreation	Future Cost	$80,870.60
Placed in Service	June 2008		
Useful Life	20		
Replacement Year	2028		
Remaining Life	8		

These play structures are reported to have been installed around 2008. These are study metal and should have a service life much longer than the prior structures which were built of wood/plastic. The play structures appear to be deteriorating at a rate typical of its age. We recommend budgeting for replacement at the timeframe indicated to limit liability issues that arise from old structures that require ongoing repairs and have safety issues and before actual failure of the structure. There is a very wide range in cost figures for this type of component due to significant quality variations. The estimate in this reserve study is based on replacement with a similar quality structure.

Bollards - Repair Contingency - 2030

		14 ea	@ $532.00
Asset ID	1006	Asset Cost	$7,448.00
		Percent Replacement	100%
	Signage	Future Cost	$10,009.49
Placed in Service	June 2000		
Useful Life	30		
Replacement Year	2030		
Remaining Life	10		

Bollard appears to be deteriorating at a rate typical of their age. These are made of study concrete, masonry and metal materials. There is no expectation of total replacement but repairs should be anticipated for grout failure, concrete cracking and damage from tree roots. As routine maintenance, inspect regularly, clean/touch up for appearance and complete minor repairs, paid from operating budget. Reserve funding for refurbishment of this monument recommended to maintain a consistent, quality appearance. A repair contingency has been included. Review annually and adjust as conditions and repair needs dictate.

Wood Park Sandblasted Signs - Replace - 2030

		2 ea	@ $3,192.00
Asset ID	1029	Asset Cost	$6,384.00
		Percent Replacement	100%
	Signage	Future Cost	$8,579.56
Placed in Service	June 2000		
Useful Life	30		
Replacement Year	2030		
Remaining Life	10		

Wood park signs have a fair to poor surface appearance. We recommend painting at this time to protect the underlying wood. Due to the wood construction eventual replacement should be anticipated as wood will rot and split. As routine maintenance, inspect regularly, clean/touch up for appearance and repair from operating budget. Reserve funding recommended for regular intervals of replacement to maintain a consistent, quality appearance.

Electrical - Modernize - 2030

		4 ea	@ $2,660.00
Asset ID	1007	Asset Cost	$10,640.00
		Percent Replacement	100%
	Electrical	Future Cost	$14,299.27
Placed in Service	June 2000		
Useful Life	30		
Replacement Year	2030		
Remaining Life	10		

Fair condition noted. Small Circuit breaker panels and meter sockets installed onsite for the common area irrigation and lighting systems. These are located behind some of the monuments. Anticipate the need for eventual replacement of these panels as they are exposed to the elements and the enclosures will eventually corrode. Cost for each location to modernize.

Monuments - Repair Contingency - 2030

		7 ea	@ $3,724.00
Asset ID	1019	Asset Cost	$26,068.00
		Percent Replacement	100%
	Signage	Future Cost	$35,033.21
Placed in Service	June 2000		
Useful Life	30		
Replacement Year	2030		
Remaining Life	10		

Community monument appears to be deteriorating at a rate typical of their age. These are made of study concrete, masonry and metal materials. There is no expectation of total replacement but repair should be anticipated for grout failure, concrete cracking and damage from tree roots. As routine maintenance, inspect regularly, clean/touch up for appearance and complete minor repairs, paid from operating budget. Reserve funding for refurbishment of this monument recommended to maintain a consistent, quality appearance. A repair contingency has been included. Review annually and adjust as conditions and repair needs dictate.

Irrigation Controllers - Replace - 2031

Asset ID	1010	2 ea	@ $2,766.40
		Asset Cost	$5,532.80
		Percent Replacement	100%
	Irrigation Systems	Future Cost	$7,658.69
Placed in Service	June 2016		
Useful Life	15		
Replacement Year	2031		
Remaining Life	11		

These are newer in age. They also have the weather station option. We recommend funding for replacement at the timeframe indicated.

Pavers - Replace - 2035

		1,290 sf	@ $17.02
Asset ID	1020	Asset Cost	$21,960.96
		Percent Replacement	100%
	Landscaping	Future Cost	$34,214.46
Placed in Service	June 2000		
Useful Life	35		
Replacement Year	2035		
Remaining Life	15		

Located at the Circle Park. We recommend budgeting for replacement at the timeframe indicated as these sand set paver systems will typically become uneven with time due to settling, root intrusion, drainage issues and use.

Irrigation Distribution Systems - Replace - 2035

		132,732 sf	@ $0.85
Asset ID	1011	Asset Cost	$112,981.48
		Percent Replacement	100%
	Irrigation Systems	Future Cost	$176,021.46
Placed in Service	June 2000		
Useful Life	35		
Replacement Year	2035		
Remaining Life	15		

Local repairs reported but no large scale replacement of piping and valves. As routine maintenance, inspect and test system regularly, perform any minor repairs as necessary from maintenance budget. Although the failure rate of the elements within this component are typically difficult to predict, prudent planning suggests setting aside funding, for large scale replacement/refurbishing of irrigation systems (I.E. piping, control valves, gate valves, etc.), on a cyclical basis.

Fence - Split Rail - Replace (2017) - 2037

		50 lf	@ $20.75
Asset ID	1008	Asset Cost	$1,037.40
		Percent Replacement	100%
	Fencing	Future Cost	$1,714.66
Placed in Service	June 2017		
Useful Life	20		
Replacement Year	2037		
Remaining Life	17		

Approx. 50 linear feet of the spit rail fence at NE 30th Ct. has recently been replaced. Although rustic looking by design, this type of fencing will eventually need to be replaced due to constant weathering and exposure. Inspect regularly and repair as needed from operating budget. Plan for regular intervals of replacement at roughly the time frame indicated below.

Note: assumed to be left to weather naturally; no funding for seal/stain herein.

Tennis Court Fence - Replace - 2037

		320 lf	@ $47.61
Asset ID	1026	Asset Cost	$15,236.48
		Percent Replacement	100%
	Tennis Court	Future Cost	$25,183.58
Placed in Service	June 2000		
Useful Life	40		
Adjustment	-3		
Replacement Year	2037		
Remaining Life	17		

Appears to be deteriorating at a rate typical of its age. Sturdy component that can last for extended period of time if not damaged or abused. Clean, repair as needed from operating funds. Best to plan for eventual replacement at roughly the time frame indicated.

Asphalt Pathways - Replace - 2038

		6,592 sf	@ $5.53
Asset ID	1001	Asset Cost	$36,466.94
		Percent Replacement	100%
	Asphalt Surfaces	Future Cost	$62,082.53
Placed in Service	August 2018		
Useful Life	20		
Replacement Year	2038		
Remaining Life	18		

New condition. Asphalt pathways at park were replaced in 2018 for approx. $33,326. As routine maintenance, keep surface clean, repair cracks and clean oils stains promptly.

Most asphalt areas can be expected to last approximately 20 years before it will become necessary for major rehabilitation or replacement to be completed.

Bark/Mulch - Replenish

Asset ID	1003	Asset Cost	
		Percent Replacement	100%
	Landscaping	Future Cost	
Placed in Service			
No Useful Life			

Board reported that landscaping upgrades are an Operating Expense.

Landscaping - Refurbish

Asset ID	1012	Asset Cost	
		Percent Replacement	100%
	Landscaping	Future Cost	
Placed in Service			
No Useful Life			

Board reported that landscaping upgrades are an Operating Expense.

Landscaping - Tree Care

Asset ID	1013	Asset Cost	
		Percent Replacement	100%
	Landscaping	Future Cost	
Placed in Service			
No Useful Life			

Board reported that large tree care is an Operating Expense.

Playground Safety Surface - Replenish

Asset ID	1022	Asset Cost	
		Percent Replacement	100%
	Recreation	Future Cost	
Placed in Service			
No Useful Life			

Operating Expense.

Signage - Misc. Metal - Replace

Asset ID	1024	Asset Cost	
		Percent Replacement	100%
	Signage	Future Cost	
Placed in Service			
No Useful Life			

Operating expense.

Trails - Gravel Replenish

Asset ID	1027	Asset Cost	
		Percent Replacement	100%
	Landscaping	Future Cost	
Placed in Service			
No Useful Life			

Board reported that gravel replenish is an Operating expense and completed as-needed.

Utility Lines

Asset ID	1028	Asset Cost	
		Percent Replacement	100%
	Utilities	Future Cost	
Placed in Service			
No Useful Life			

Public utility lines are not the responsibility of the HOA to maintain or replace. This includes water, sewer and storm sewer systems.

Definitions Index

Abbreviations

ea = each	FY = fiscal year	lf or lin ft = lineal feet	ls = lump sum
RL = remaining life	sf or sq ft = square feet	sy or sq yd= square yard	
UL = useful life	100 sq ft = 1 square)	% = percent	

1. **Allocation %**
   A percentage of the total Reserve Allocation. See - Calculations Appendix
2. **Allocation Increase Rate**
   Expressed as a percentage rate that reflects the increase of a given year's Reserve Allocation over the previous year's Reserve Allocation and utilized only in the Cash Flow Analysis.
3. **Base Year**
   The year in which the governing documents were recorded and/or the buildings constructed (average year may be used for phases built over a period) and utilized to determine the approximate complex age. This parameter is provided for information only.
4. **Common Interest Development (CID)**
   Defined by shared property and restrictions in the deed on use of the property. A CID is governed by a mandatory Association of homeowners which administers the property and enforces its restrictions. The following are two typical CID subdivision types:
   - Condominium- In general, the recorded owner has title to the unit (or airspace). They are typically responsible for the interior of their individual unit/garage, all utilities that service their unit and any exclusive use common area associated with their unit (e.g. balcony, doors/windows, patio yard, etc.).
   - Planned Development- In general, the recorded owner has title to the lot. They are typically responsible for the maintenance and repair of any structure or improvement located on their respective lot.

   **Note- CIDs & subdivision types are general and may not apply or may vary, based on your local.*
5. **Component Inventory**
   The task of selecting and quantifying reserve items. This task can be accomplished through on-site visual observations, review of association design and organizational documents, review of established association precedents, and discussion with appropriate association representatives.
6. **Condition Assessment**
   The task of evaluating the current condition of the component based on observed or reported characteristics and normal documented in the field report for a Level 1 or Level 2 Reserve Study.
7. **Contingency Rate**
   Expressed as a percentage rate that reflects a factor added to the unit cost to prepare for an event that is liable to occur, but not with certainty.
8. **Current Cost**
   The current fiscal year's estimated cost to maintain, replace, repair, or restore a reserve component to its original functional condition. Sources utilized to obtain estimates may include: the association, its contractors, other contractors, specialists and independent consultants, the State department of Real Estate (or other state department as applicable), construction pricing and estimating manuals, and the preparer's own experience and/or database of costs formulated in the preparation of other reserve study reports. See - Calculations Appendix.
9. **Disbursement / Expenditures**
   The funds expected to be paid or expended from the Reserve Balance.
10. **Extended Cost**
    See - Calculations Appendix.
11. **Fiscal Year (FY)**
    A twelve-month period for which an organization plans the use of its funds. There are two distinct types:
    - Calendar Fiscal Year (ends December 31)
    - Non-Calendar Fiscal Year (does not end December 31)
12. **Full Funded Balance (FFB)**
    Total Accrued Depreciation. An indicator against which the FY Start Balance can be compared. The balance that is in direct proportion to the fraction of life "used up" of the cost. See - Calculations Appendix.
13. **Funding Goal**
    Independent of methodology utilized, the following represents the basic categories of funding plan goals:
    - Baseline Funding- Maintaining a Net Reserve Balance above zero for length of the study.
    - Full Funding- Maintaining a Reserve Balance at or near Percent Funded of 100%.
    - Statutory Funding- Maintaining a specified Reserve Balance/Percent Funded per statutes.
    - Threshold Funding- Establishing and maintaining a set predetermined Reserve Balance or Percent Funded.
14. **Funding Method (or Funding Plan)**
    An Association's plan to provide income to the reserve fund to offset expected disbursements from that fund. The following represents two (2) basic methodologies used to fund reserves:
    - Cash Flow Method- A method of developing a reserve funding plan where allocations to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different reserve funding plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.
    - Component Method- The component method develops a reserve-funding plan where the total contribution is based on the sum of contributions for individual components. The component method is the more conservative (typically higher reserve account balance) of the two funding options and assures that the association will achieve and maintain an ideal level of reserves over time. This method also allows for computations on individual components in the analysis. However, this method has also limitations with respects to variations in actual useful life of components and is much more time intensive to accurately follow this funding strategy.

15. **Funding Plan**
The combined Funding Method & Funding Goal.
16. **FY End Balance (same as next FY Start Balance)**
The balance in reserves at end of applicable fiscal year. See - Calculations Appendix.
17. **FY Start Balance (same as prior year FY End Balance)**
The balance in reserves at start of applicable fiscal year.
18. **Inflation Rate**
Expressed as a percentage rate that reflects the increase of this year's costs over the previous year's costs. Also known as a 'cost increase factor'.
19. **Interest Earned**
The annual earning of reserve funds that have been deposited into certificates of deposit (CDs), money market accounts or other investment vehicles. See - Calculations Appendix.
20. **Interest Rate**
The ratio of the gain received from an investment and the investment over a period (usually one year), prior to any federal or state-imposed taxes.
21. **Interest Rate (net effective)**
The ratio of the gain received from an investment and the investment over a period (usually one year), after any federal or state-imposed taxes.
22. **Levels of Service**

Level 1 Reserve Study (Full or Comprehensive)- A Reserve Study in which the following five Reserve Study tasks are performed:

- Component Inventory
- Condition Assessment (based upon on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan

Level 2 Reserve Study (Update, With-Site-Visit/On-Site Review)- A Reserve Study update in which the following five tasks are performed:

- Component Inventory (from prior study)
- Condition Assessment (based upon on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan
- *Note- Updates are reliant on the validity of prior Reserve Studies.

Level 3 Reserve Study (Update, No-Site-Visit/Off-Site Review)- A Reserve Study update with no on-site visual observations in which the following three tasks are performed:

- Life and Valuation Estimates (from prior study - updated)
- Fund Status
- Funding Plan
- *Note- Updates are reliant on the validity of prior Reserve Studies.

23. **Percent Funded**
A comparison of the Fully Funded Balance (ideal balance) to the Fiscal Year Actual Start Balance expressed as a percentage and used to provide a 'general indication' of reserve strength. See Calculations Appendix.
24. **Quantity**
The number or amount of a reserve component or subcomponent.
25. **Remaining Life (RL)**
The estimated time, in years, that a reserve component can be expected to continue to serve its intended function.
26. **Replacement %**
A percentage of the total replacement for a reserve component or subcomponent. This parameter is normally 100%.
27. **Reserve Allocation**
The amount to be annually budgeted towards reserves based on a Funding Plan.
28. **Reserve Component (or subcomponent)**
The individual line items in the reserve study, developed or updated in the physical analysis that form the building blocks of the reserve study. They typically are:

- association responsibility,
- with limited useful life expectancies,
- predictable remaining useful life expectancies,
- above a minimum threshold cost,
- and, as required by statutes.

29. **Restoration**
Defined as to bring back to an unimpaired or improved condition. General types follow:

- Building- In general, funding utilized to defray the cost (in whole or part) of major building components that are not necessarily included as line items and may include termite treatment.
- Irrigation System- In general, funding utilized to defray the cost (in whole or part) of sectional irrigation system areas including modernization to improve water management.
- Landscape- In general, funding utilized to defray the cost (in whole or part) of sectional landscape areas including modernization to improve water conservation & drainage.

30. **Risk Factor (Percent Funded)**
The associated risk of the availability of reserves to fund expenditures by interpreting the Percent Funded parameter as follows:

- 70% and above- LOW
- 30% to 70%- MODERATE
- 30% and below- HIGH

*High risk is associated with a higher risk for reliance on special assessments, loans and litigation.
31. **Unit Cost**
The current fiscal year's estimated cost to maintain, replace, repair, or restore an individual "unit of measure" of a reserve component or subcomponent to its original functional condition.
32. **Unit of Measure**
A system of units used in measuring a reserve component or subcomponent (i.e. each, lineal feet, square feet, etc.).
33. **Useful Life (UL)**
Total Useful Life or Depreciable Life. The estimated time, in years, that a reserve item can be expected to serve its intended function if properly constructed and maintained in its present application or installation.

Disclosures Index

The below disclosures are in accordance with reserve study standards developed by CAI, APRA and statutory requirements.

1. **Items Beyond the Scope of this Report**
   This reserve study has been conducted to outline a financial plan for the proper and adequate budgeting of the Association component repair and/or replacement. This report should not be utilized for any other purpose and should not be considered or deemed appropriate or reliable for, but not limited to, any of the following:

   - Building or land appraisals for any purpose
   - State or local zoning ordinance violations
   - Building code violations
   - Soils conditions, soils contamination or geological stability of site
   - Engineering analysis or structural stability of site
   - Air quality, asbestos, electromagnetic radiation, formaldehyde, lead, mercury, or radon
   - Water quality or other environmental hazards
   - Invasions by termites and any or all other destroying organisms or insects
   - Damage or destruction due to pests, birds, bats or animals to buildings or site
   - Adequacy or efficiency of any system or component on site
   - Specifically excluded reserve items
   - Septic systems and septic tanks
   - Buried or concealed portions of swing pools, pool liners, Jacuzzis/spas or similar items
   - Items concealed by signs, carpets or other things
   - Missing or omitted information supplied by the Association for the purposes of reserve study preparation
   - Hidden improvements such as sewer lines, water lines, or other buried or concealed items

2. **Qualifications**
   We are a professional business in the market to prepare Reserve Studies. Our Reserve Analysts' are either designated with or working towards the RS and/or PRA designations which are given by the two leading industry organizations which require peer review, continuing education and provide resources to stay on top of industry trends.
3. **Invasive Testing**
   Estimated life expectancies and life cycles are based upon conditions that were readily accessible and visible at the time of the site visit. We did not destroy any landscape work, building walls, or perform any methods of intrusive/invasive testing during the site visit. In these cases, information may have been obtained by contacting the contractor or vendor that has worked on the property. The physical analysis performed during this site visit is not intended to be exhaustive in nature and may include representative sampling.
4. **Conflicts of Interests**
   As the preparer of this reserve study; the Reserve Analyst certifies that we do not have any vested interests, financial interests, or other interests that would cause a conflict of interest in the preparation of this reserve study.
5. **Representative Sampling**
   This study and report is based on observations of the visible and apparent conditions of a reasonable representative sampling of the property's elements at the time of inspection. Although due diligence was performed during the inspection phase, we make no representations regarding latent or concealed defects that may exist. The inspection did not constitute any invasive investigations and was not intended to determine whether applicable building components, systems, or equipment are adequate or in compliance with any specific or commonly accepted design requirement, building code, or specification. Such tasks as material testing, engineering analysis, destructive testing, or performance testing of building systems, components, or equipment are not considered as part of the scope of work, nor are they considered by the reserve study industry standard.
6. **Reliance on Client & Vendor Data Provided**
   Information provided to the preparer of a reserve study by an official representative of the association regarding financial, historical, physical, quantitative or reserve project issues will be deemed reliable by the preparer. A reserve study will reflect information provided to the preparer of the reserve study. The total of actual or projected reserves required as presented in the reserve study is based upon information provided that was not audited. A reserve study is not intended to be used to perform an audit, an analysis of quality, a forensic study or a background check of historical records. A site visit conducted in conjunction with a reserve study should not be deemed to be a project audit or quality inspection. The results of this study are based on the independent opinion of the preparer and their experience and research during their career in preparing Reserve Studies. In addition, the opinions of experts on certain components have been gathered through research within their industry and with client's actual vendors. There is no implied warrantee or guarantee regarding our life and cost estimates/predictions. There is no implied warrantee or guarantee in any of our work product. Our results and findings will vary from another preparer's results and findings. A Reserve Study is necessarily a work in progress and subsequent Reserve Studies will vary from prior studies.
7. **Update to Prior Reserve Studies**
   Level II Studies: Quantities of major components as reported in previous reserve studies are deemed to be accurate and reliable. The reserve study relies upon the validity of previous reserve studies. Level III Studies: In addition to the above we have not visited the property when completing a Level III "No Site Visit" study. Therefore, we have not verified the current condition of the common area components. It is assumed all prior study component information related to quantities, condition assessments, useful life and remaining useful life are accurate.
8. **Assumption Regarding Ongoing Maintenance**
   The projected life expectancy of the major components and the funding needs of the reserves of the association are based upon the association performing appropriate routine and preventative maintenance for each major component. Failure to perform such maintenance can negatively impact the remaining useful life of the major components.

9. Assumptions Regarding Defect in Design or Construction
This Reserve Study assumes that all construction assemblies and components identified herein are built properly and are free from defects in materials and/or workmanship. Defects can lead to reduced useful life and premature failure. It was not the intent of this Reserve Study to inspect for or to identify defects. If defects exist, repairs should be made so that the construction components and assemblies at the community reach their full and expected useful lives. We have assumed all components have been properly built and will reach normal, typical life expectancies. In general, a reserve study is not intended to identify or fund for construction defects. We did not and will not look for or identify construction defects during our site visit.

10. Basis of Cost Estimates
Pricing used for the repair or replacement costs indicated in this report are derived from a variety of sources, e.g., recent contractor bids received by subject property HOA or prior clients, construction product vendor catalogs, internet, or national construction cost estimating publishers (RS Means / Marshall & Swift). The material and labor pricing provided are estimates and have been augmented, as necessary, to account for specific site conditions (i.e. material handling, scaffolding, etc.). The total expenses represent a useful guideline whereby reserve funds can be accumulated for future repairs and replacements. The estimated repair and replacement expenses, unless otherwise noted, do not include allowances for architectural, engineering, or permitting fees.

11. Limitations on Report Use
A reserve study is not intended to be used to perform an audit, an analysis of quality, a forensic study or a background check of historical records. A site visit conducted in conjunction with a reserve study should not be deemed to be a project audit or quality inspection. This Reserve Study is provided as an aid for planning purposes and not as an accounting tool. Since it deals with events yet to take place, there is no assurance that the results enumerated within it will, in fact, occur as described. Additionally, other unanticipated expenses may arise that are not included within this reserve study. This 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.

12. WA State RCW 64.34.382 & WA State RCW 64.38.070
This reserve study includes all aspects required per WA State RCW requirements outlined in the Washington Condominium Act and the Homeowners' Association Act.

This 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.

13. Disclosures Required by RCW 64.90.550.
This Reserve Study meets all requirements of the Washington Uniform Common Interest Ownership Act.

a) This Reserve Study was prepared with the assistance of a reserve study professional and that professional was independent;
b) This Reserve Study includes all information required by RCW 64.90.550 Reserve Study – Contents; and
c) This 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 the association to (1) defer major maintenance, repair, or replacement, (2) increase future reserve contributions, (3) borrow funds to pay for major maintenance, repair, or replacement, or (4) impose special assessments for the cost of major maintenance, repair, or replacement.

Calculations Index

1. **Allocation % =**

   Reserve Allocation (Component Method) / Total Reserve Allocation (Component Method) x 100

2. **Current Cost =**

   Extended Cost (for a component without subcomponents)
   i. -or-
   Sum of subcomponent Extended Costs (for a component with subcomponents)

3. **Extended Cost =**

   Quantity x Unit Cost x Replacement % x (1+Contingency Rate)

4. **FY End Balance (same as Next FY Start Balance) =**

   Initial or current fiscal year-

   Current Reserve Balance + Interest Earned + Reserve Allocation to Fund + Special Assessment to Fund + Funds Due from Operating - Approved Funds to Disburse - Disbursements

   Subsequent fiscal years-

   FY Start Balance + Interest Earned + (Reserve Allocation (from previous year) x (1 + Reserve Allocation Rate) - Disbursements

5. **Interest Earned=**

   Initial fiscal year-

   Current Reserve Balance x (Interest Rate (net effective)/12 x Number of funding months remaining in current fiscal year)

   Subsequent fiscal years-

   FY Start Balance x Interest Rate (net effective)

   Accumulation Function and Amount Function

   https://www.reservedataanalyst.com/int

6. **Percent Funded =**

   (Reserve Account Balance / Fully Funded Balance) x 100

7. **Reserve Allocation (Component Method) =**

   Current Cost / Useful Life

8. **Fully Funded Balance =**

Basic Fully Funded

There are two published methods of calculating Fully Funded. The first only considers the present value of a component. Present value in each period will change according to the inflation applied.

$$Fully Funded = (\ Age / Useful\ Life\ ) * Present\ Value$$

Community Association Press Fully Funded

To account for inflation and interest earned on deposit the writers of 'RESERVE FUNDS: How & Why community Associations Invest Assets' came up with:

$$Basic\_FF = (\ Age / Useful\ Life\ ) * Present\ Value$$

$$\begin{aligned} CAI\_FF = {} & Basic\_FF \\ & + Basic\_FF/(1+interest)^{Remaining\ Life} \\ & - Basic\_FF/(1+inflation)^{Remaining\ Life} \end{aligned}$$

This is better than the basic method but still an approximation. The below formula most accurately incorporates inflationary and interest impact over time.

Annuity Due Fully Funded

To reach a more accurate future replacement cost the below formula is most accurate in that the component is actually fully funded when the projected is expected to occur whereas the above two formula come up slightly short (when inflation and interest rates are not the same):

$$Future\ Cost = (\ 1+inflation)^{n} * Current\ Cost$$
$$n = Years\ Until\ Replacement$$

Then get the payment needed for the full-term replacement, (using useful life) with equation (2)

Finally, get the future value of the Annuity Due with equation (1) using the age of the component for n. The result is an Annuity Due Fully Funded

Note: The "Basic" formula for the Fully Funded Balance is utilized by most companies in the reserve study industry however this formula is not the most accurate. The above Annuity Formula is most accurate for mathematical calculations over time. More info can be found at the following link: www.reservedataanalyst.com/math

Timberline Ridge HOA
Component Index

Total Funded Assets	22
Total Unfunded Assets	7
Total Assets	29