



# RESERVE DATA ANALYST

## **Sample HOA**

Acme, USA

### **Level II Reserve Study Update (With Site Inspection)**

Report Date: October 1, 2024

Report Number: Sample

Report Version: Final

Prepared for Fiscal Year: 2025

### **Reserve Data Analyst**

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5120	Pavers (sand set) - Replace	57
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6280	Railings (metal) - Paint	59
6290	Railings (metal) - Replace	60
6870	Retaining Walls (masonry) - Replace	61
5440	Sewer Lateral Lines (side sewer) - Replace	62
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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 by following the links in the Knowledge Base pages of this reserve study and in our Reserve Study Guidebook available at the following link:



[www.reservedataanalyst.com/guidebook](http://www.reservedataanalyst.com/guidebook)

To navigate this study more easily, we recommend printing out the Table of Contents page(s) and the Component Details Index page(s) at the front 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 Details Index pages when navigating.

Within this reserve study you will find:

- ➔ Knowledge Base Pages - A list of common questions that a typical reader of our reserve study will have (e.g., cost, inflation, useful life), as well as links to additional information on the topics.
- ➔ The Component List - A list of the components (i.e., assets) that are reportedly the Client's responsibility along with their respective costs, quantity, useful life, remaining useful life, etc.
- ➔ Annual Projected Expenditures - A timeline of the estimated dates that we recommend fully allocating money to the repair/replacement projects. (Annual Expenditures Chart & Annual Expenditure List)
- ➔ Funding Model Projections - Various funding models with different goals in mind and comments about the particular funding model goal.
- ➔ Component Detail Pages - These pages have more in depth information for each component. Prior replacement history, component specific comments and reasoning for implementing different funding scenarios or functions in our software (e.g., delay funding, repeat limit, adjustments to age) can be found here. This sections is best navigated by utilizing the Component Details Index which follows the Table of Contents page.

One of the main points we like to make clear to a reader of this reserve study is that recommendations for the allocation rates of the different funding models (excluding Client provided models) are only for the initial year of this reserve study; all future years are projections which are educated guesses and have numerous assumptions (e.g., inflation, proper maintenance, proper installation, known reserve account balances, etc.) built into the mathematical models. The further out in time a reader of the study goes, the less reliable the projections are likely to be. Note that the recommendations for the first fiscal year in the study are based on current cost and current useful life estimates, which we typically have lots of good data on, as opposed to future cost and future useful life projections which again are educated guesses based on historical averages.

Importance of Updates : From year to year the recommendations of the reserve analyst will typically change (sometimes significantly) based on variables that will usually change over time. More frequent updates (preferably annually) to this study help to incorporate changes to these variables as they occur each fiscal year so revisions to the recommendations are less significant than if updates are done infrequently.

Organization Name	Sample HOA
Organization Location	Acme, USA
*Contributing Members	7
Approximate Year of Construction	2018
*Fiscal Year Time Period	January 1st - December 31st
Level of Service	Level II Reserve Study Update (With Site Inspection)
Report Version	Final
Prepared for Fiscal Year	2025
Last On-Site Inspection Date	October 1, 2024
Inflation Rate for Projections	Variable (see funding models)
*Rate of Return (APR) for Account Balances	Variable (see funding models)
*Tax Rate on Interest Earned	35.03%
Funding Plan Method	Inflation Adjusted Pooled Cash Flow Method

**Reserve Account Summary**

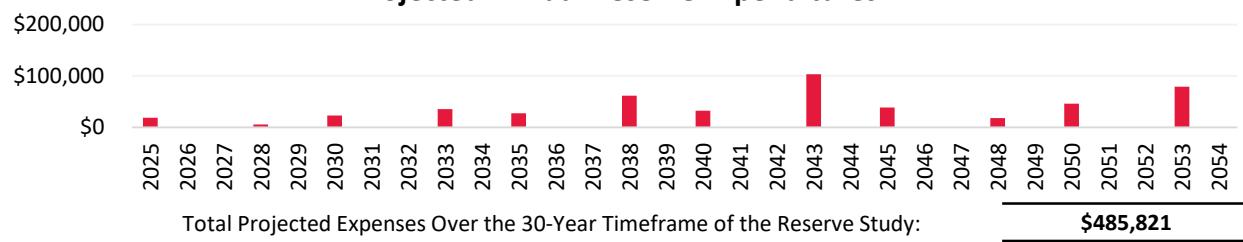
<p><b>Current Percent Funded</b></p> <p><b>41.3%</b></p>	<p>*Estimated Beginning Balance</p> <p>\$38,063</p>	<p><b>Risk Indicator</b></p> <p><b>High Risk</b></p>
	<p>Current Fully Funded Balance</p> <p>\$92,066</p>	
	<p>Current Reserve Account Surplus or (Deficit)</p> <p>(\$54,003)</p>	
	<p>Current Avg. Surplus or (Deficit) Per Member</p> <p>(\$7,715)</p>	
	<p>*Current Annual Reserve Allocation Rate</p> <p>\$5,000</p>	
	<p>*Approved Special Assessment(s) in FY 2025</p> <p>None</p>	
<p>*Approved Loan(s) Amount in FY 2025</p> <p>None</p>		
<p><i>A low percent funded range (0-30%) for any significant period of time carries a high risk for having to rely on emergency financing. Our risk rating is the 5-year average percent funded from the Current Model's projections.</i></p>		

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

	100% Funded		Recommended		Baseline		Current		
2025	\$69,000	100.3%	\$18,200	42.8%	\$9,125	32.6%	\$5,000	27.9%	2025
2026	\$16,000	100.6%	\$18,837	54.2%	\$9,444	36.6%	\$5,175	28.6%	2026
2027	\$16,000	100.0%	\$19,496	62.4%	\$9,775	39.5%	\$5,356	29.1%	2027
2028	\$16,560	100.6%	\$20,179	68.4%	\$10,117	40.1%	\$5,544	27.2%	2028
2029	\$17,140	101.2%	\$20,885	74.4%	\$10,471	42.5%	\$5,738	28.1%	2029
~ 100% funded at end of each fiscal year.		Achieve 100% funded within projections.		Account stays above \$0 for projections.		Current allocation rate has been supplied by the Client.			

\* Data supplied by the Client. Any year end negative percent funded (if applicable) has not been shown.

**Projected Annual Reserve Expenditures**



**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 formula known as the “Percent Funded” calculation.

The Reserve Analyst develops funding models the adhere to some basic principles:

- ➔ Distribute the costs as fairly as possible over time.
- ➔ Have stable budgets over time (i.e., limiting large fluctuations)
- ➔ Limit the risk of 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.

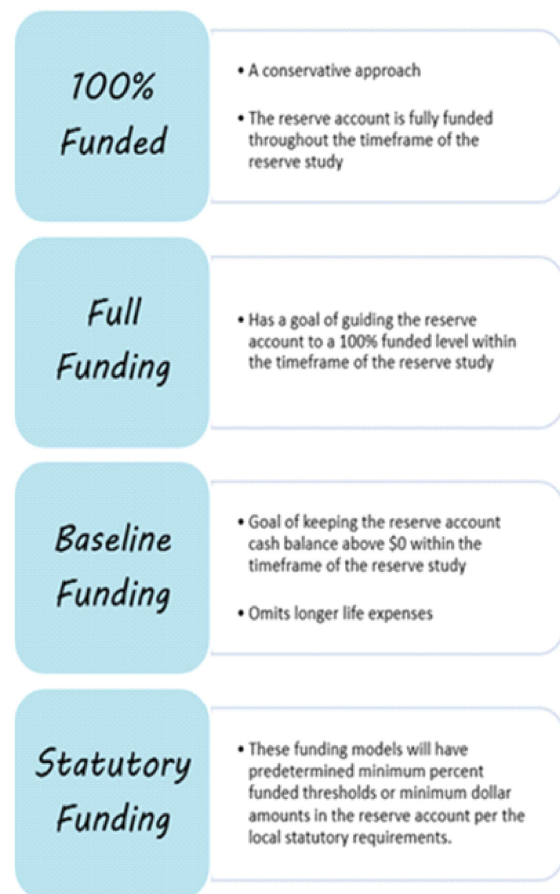
This study is not the budget, and it should not be revised to just reflect the budgeting decisions of the Client. An example of this is to push off overdue projects that the Client may not have the funds to complete. This report should reflect the replacement dates of the components utilizing typical or historical records for the useful lives & costs for these projects; the useful lives can be updated to reflect actual on-site conditions as the components age and in updates to this report.

Should the Client decide to make budgeting decisions such as deferring projects (typically due to a lack of funds) and that appear to be overdue carries its own risk with relation to scenarios like higher project costs later and marketability issues.

**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](http://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](http://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 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](http://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. In addition to 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](http://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

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](http://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](http://www.reservedataanalyst.com/CAI)



[www.reservedataanalyst.com/APRA](http://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:

- ➔ It's 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.

**When to Complete Reserve Projects?**

Components should be replaced when they are no longer functioning as designed. This is best determined by your component specific Vendor who can inspect and give their best professional advice on the condition assessment and timeframe on when/what needs to be done. Note that this reserve study is not a “to do list”; it is a budgeting document with recommendations for when we suggest having the funds allocated towards the projects. If something fails earlier than projected then replace it, if it lasts longer (as determined by your component specific ...

... Vendor) then take their advice as they are experts in their specific field. Projects should be completed when they need to be completed regardless of our projections in the study.

Note that this does not mean it would be appropriate to delay projects simply because funds are not available though as that is a budgeting decision not based on component specific Vendor recommendations.

A common issue we see is the delay of projects simply because there is a lack of reserve funds available, only to have a much larger and more expensive project later due to a variety of factors that come into play when delaying reserve projects (e.g., inflation, collateral damage).

**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 Operating Budget.

Virtually all the components should receive regular cycles of inspection and repairs 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.



[www.reservedataanalyst.com/rsmeans](http://www.reservedataanalyst.com/rsmeans)

**Recommendations Versus Projections**

In the reserve study the Reserve Analyst’s recommendations for the allocation rates of the different funding models apply only to the year the reserve study is being developed for. All projections in the study are future educated guesses with assumptions about a significant number of variables (e.g., inflation rate, financial, component useful life, component remaining useful life, proper maintenance, etc.).

Projections can be accurate or extremely inaccurate based on these assumptions; because of this we do not suggest giving much consideration to projections in the decision making for overall reserve budgeting. This may sound counter-intuitive, but this is due to recommendations for the allocation rates, in the initial year of the study, being based on predominantly current known factors (e.g., current costs, current inflation, current maintenance practices) versus projections which are based on future assumptions to a variety of variables (e.g., future costs, future inflation rates, and future maintenance practices). Follow the below link to our website to learn more about recommendations versus projections.



[www.reservedataanalyst.com/projections](http://www.reservedataanalyst.com/projections)

**You Have a Reserve Study Now What?**

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 these simple rules when creating and implementing a reserve budget.

**Actionable**

Is your goal possible within the constraints & limitations of very important but often overlooked factors related to statutory requirements and the governing documents?

**Comprehensive**

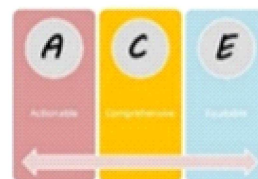
Your goal should be clear and specific, otherwise you won't be able to focus your efforts or feel truly motivated to achieve it. When drafting your goal, try to answer the four "W" questions - What do we want to accomplish? Why is this goal important? Who is involved? When is this goal set to occur?

**Equitable**

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.



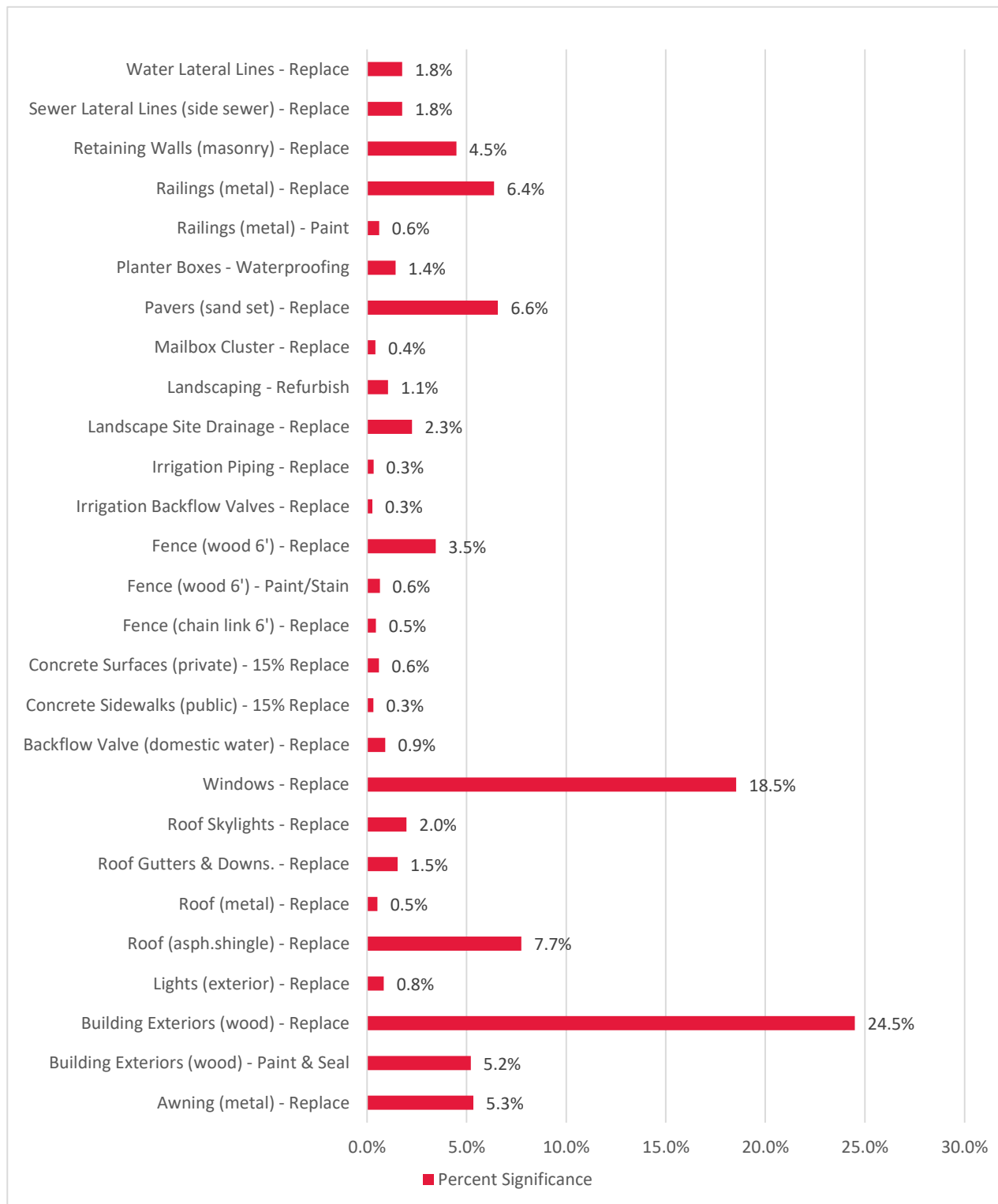
[www.reservedataanalyst.com/ace](http://www.reservedataanalyst.com/ace)

# Component List

Version: Final

ID	Component Description	Install/Alloc. Year	Replace Year	Useful Life (UL)	Adjust / Delay (D)	Remaining UL	Quantity	Qty. Type	Cost Per Qty.	% Replace	Current Cost	% Significance
<b>Totals:</b>											<b>\$353,570</b>	<b>100%</b>
>> Building Exterior Components <<												
1270	Awning (metal) - Replace	2018	2068	50		43	140 sf		\$135.00	100.0%	\$18,900	5.3%
1940	Building Exteriors (wood) - Paint & Seal	2018	2025	5		0	5,500 gsf		\$3.35	100.0%	\$18,425	5.2%
1950	Building Exteriors (wood) - Replace	2018	2068	50		43	5,500 gsf		\$15.75	100.0%	\$86,625	24.5%
4820	Lights (exterior) - Replace	2018	2043	25		18	22 ea		\$135.00	100.0%	\$2,970	0.8%
6970	Roof (asph.shingle) - Replace	2018	2043	25		18	40 sq		\$685.00	100.0%	\$27,400	7.7%
7080	Roof (metal) - Replace	2018	2068	50		43	1 sq		\$1,850.00	100.0%	\$1,850	0.5%
7310	Roof Gutters & Downs. - Replace	2018	2043	25		18	396 lf		\$13.75	100.0%	\$5,445	1.5%
7360	Roof Skylights - Replace	2018	2043	25		18	56 sf		\$125.00	100.0%	\$7,000	2.0%
8400	Windows - Replace	2018	2068	50		43	596 sf		\$110.00	100.0%	\$65,560	18.5%
>> Site Components <<												
5280	Backflow Valve (domestic water) - Replace	2018	2043	25		18	1 ea		\$3,250.00	100.0%	\$3,250	0.9%
2160	Concrete Sidewalks (public) - 15% Replace	2033	2038	5	D	13	319 sf		\$24.00	15.0%	\$1,148	0.3%
2200	Concrete Surfaces (private) - 15% Replace	2033	2038	5	D	13	595 sf		\$24.00	15.0%	\$2,142	0.6%
3180	Fence (chain link 6') - Replace	2023	2068	45		43	9 lf		\$178.00	100.0%	\$1,602	0.5%
3390	Fence (wood 6') - Paint/Stain	2018	2028	5	5	3	163 lf		\$14.00	100.0%	\$2,282	0.6%
3370	Fence (wood 6') - Replace	2018	2038	25	-5	13	163 lf		\$75.00	100.0%	\$12,225	3.5%
4470	Irrigation Backflow Valves - Replace	2018	2038	20		13	1 ea		\$950.00	100.0%	\$950	0.3%
4530	Irrigation Piping - Replace	2018	2058	40		33	484 sf		\$2.40	100.0%	\$1,162	0.3%
4620	Landscape Site Drainage - Replace	2018	2038	20		13	1 ls		\$8,000.00	100.0%	\$8,000	2.3%
4640	Landscaping - Refurbish	2018	2038	20		13	916 sf		\$4.07	100.0%	\$3,728	1.1%
4940	Mailbox Cluster - Replace	2018	2043	25		18	1 ea		\$1,500.00	100.0%	\$1,500	0.4%
5120	Pavers (sand set) - Replace	2018	2033	20	-5	8	1,010 sf		\$23.00	100.0%	\$23,230	6.6%
5220	Planter Boxes - Waterproofing	2018	2038	20		13	482 sf		\$10.50	100.0%	\$5,061	1.4%
6280	Railings (metal) - Paint	2018	2028	10		3	120 lf		\$18.00	100.0%	\$2,160	0.6%
6290	Railings (metal) - Replace	2018	2068	50		43	120 lf		\$188.00	100.0%	\$22,560	6.4%
6870	Retaining Walls (masonry) - Replace	2018	2058	40		33	289 sf		\$55.00	100.0%	\$15,895	4.5%
5440	Sewer Lateral Lines (side sewer) - Replace	2018	2078	60		53	50 lf		\$125.00	100.0%	\$6,250	1.8%
5490	Water Lateral Lines - Replace	2018	2078	60		53	50 lf		\$125.00	100.0%	\$6,250	1.8%

## Component % Significance



The above chart illustrates the current cost breakdown (by percent) of the components that are included in the mathematical models. Special attention should be given to those components 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 Projected Annual Expenditures List pages of this study for a breakdown, by year, of the projected timeline of expected expenditures.

## **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.

### Long Life Components

If properly constructed the below components are long life components which, currently, have no predictable useful life, predictable remaining useful life, or predictable associated replacement costs. As these components age and a history of repair/replacement needs becomes evident or there are failures then we suggest reevaluating these systems and having them inspected by qualified vendors. Future updates to the reserve study should be revised accordingly.

- > Retaining Walls - Poured Concrete

### 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 has excluded items based on the Client's request and based 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.

- > Utility Main Lines - Utility Company's Responsibility
- > Wood Fence at South Boundary of Plat - Neighboring Parcel's Responsibility
- > All Exterior Doors - Unit Owner's Responsibility
- > Electrical Meter Sockets - Unit Owner's Responsibility
- > Interior Fire Peripherals (if applicable) - Unit Owner's Responsibility
- > All Interior Plumbing - Unit Owner's Responsibility

### Operating Account Expenses

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

- > Landscaping
- > Minor Irrigation System Repairs (e.g., sprinkler heads, valve replacement, controllers/timers)
- > Tree Care & Hazardous Tree Removal
- > Ongoing Spot Painting at Siding, Fencing, Railing

## **Components Maintenance & Inspections**

The Client stated that they have been working with the Vendors for ongoing maintenance of components. Note that a lack of ongoing maintenance at any point in the past or future can significantly reduce the useful life of components. It is assumed that all proper maintenance has and will be completed per the component specific Vendor's recommendations (unless otherwise noted). It is assumed all inspections will be completed per local statute and are assumed to be paid for from the operational account, as reported by the Client (unless otherwise noted).

## **Comments on Component Projected Inflation Rate**

At the request of the Client we have used a higher construction inflation rate for the initial 3 years of this reserve study (5%) before reverting back to a 50 year average construction inflation rate (3.5%). There has been very high inflation in the construction industry in recent years and the Client prefers to be slightly more conservative with respect to the projected inflation rate in the initial years of the reserve study.

Note that this higher initial inflation rate has been applied to all funding models in the reserve study so there is an "apples to apples" comparison between the different funding models.

### **Comments on Reserve Data Analyst's Software Functions**

Utilizing software that is mathematically accurate, and which is also adaptable is an extremely important part of completing a reserve study. With so many scenarios we encounter having flexible software helps us to create comprehensive and adaptable reserve studies. Typically comments will be made in the Component Details sections of this reserve study when a components fully funded balance or projected allocation/replace date has been altered utilizing one of our software functions. To learn more about our software functions please visit our [blog post](http://www.reservedataanalyst.com/blog/software-functions/) about our proprietary software and its functions: [www.reservedataanalyst.com/blog/software-functions/](http://www.reservedataanalyst.com/blog/software-functions/)

### **Reserve Study Update - Inflation**

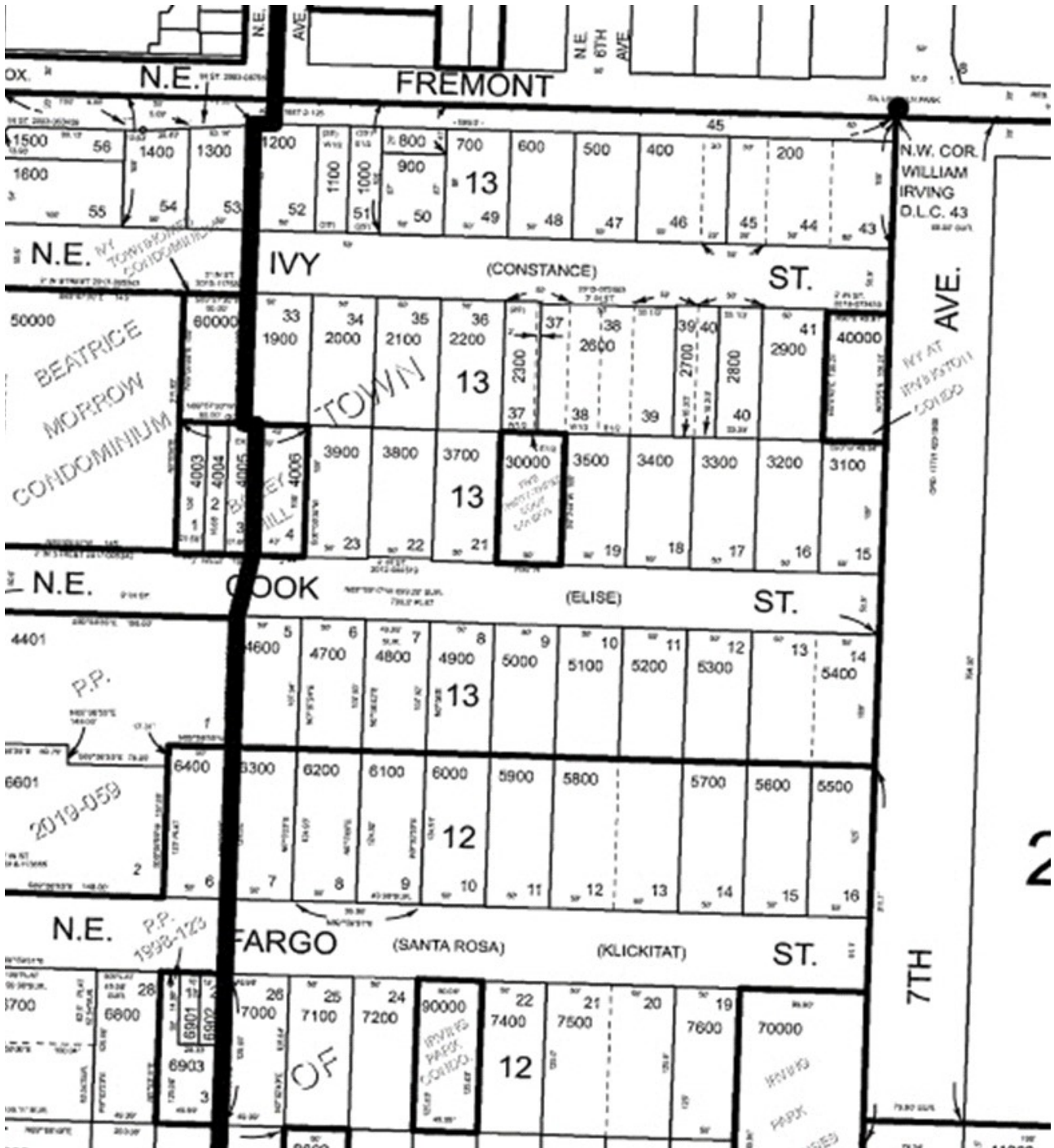
Per the most recent construction cost data in this region the inflation rate has been **2.6%** since the prior reserve study was performed in 2024. An inflation rate has been applied to the component project estimated costs in this reserve study update. Note that the above average inflation percent rate increase is for all construction jobs, actual individual component increases may be above or below this average.

Note that a historical average 3.5% has been applied to projections (future estimated project costs) in the reserve study as even though there will be time periods of inflation that are well above and below this historical average inflation rate, we would expect the long-term average to fall back in line with the historical average in the United States based on data going back over 100 years. To learn more about how inflation is applied to the reserve study please visit [www.reservedataanalyst.com/inf](http://www.reservedataanalyst.com/inf)

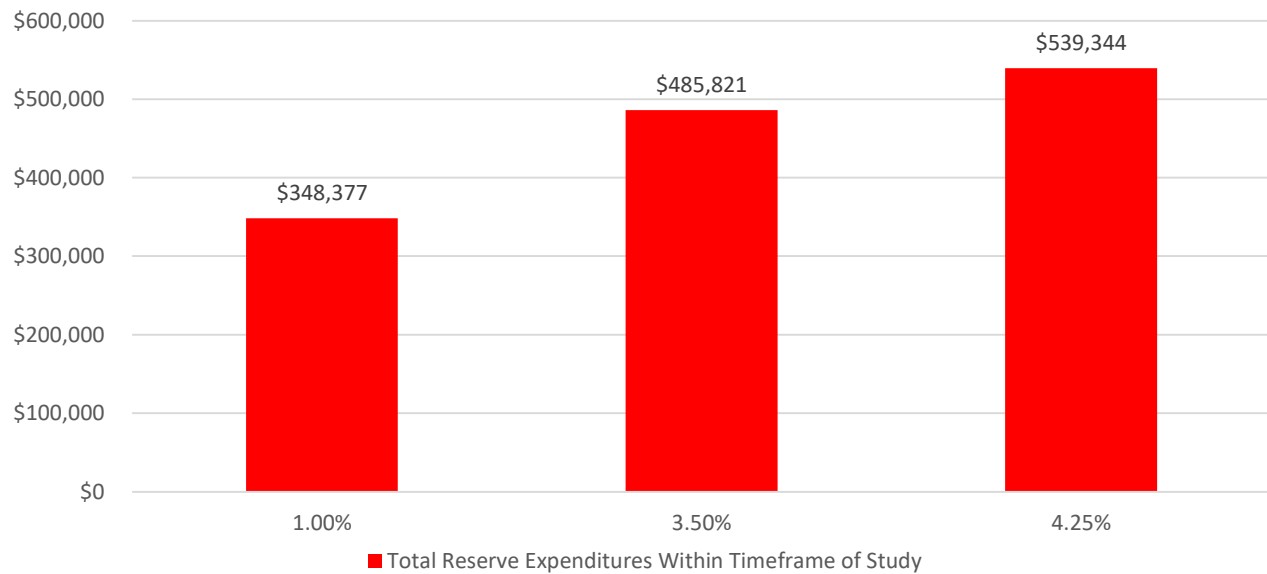
### **Comments on the Interest / Rate of Investment Returns Rate**

At the request of the Client, we have included a higher rate of return on investments for the initial **5** years of the reserve study before falling back into the more typical rate of return on investments this community have received in recent years. This higher rate in the initial years is reportedly being obtained by investing some of the reserve account into CD's at the guidance of their Investment Financial Advisor Vendor.

Note that this higher initial interest/rate of return rate has been applied to all funding models in the reserve study so there is an "apples to apples" comparison between the different funding models.



## Impact of Construction Inflation



The above chart compares the impact of the below annual construction inflation rates applied to the reserve expenditures over time (an annual list is provided on the Annual Expenditures List Pages - see Table of Contents). The total sum of the 30-years of projected reserve project expenditures varies significantly based on these different inflation rates applied to the reserve study mathematical models. Updating prior studies with actual construction inflation rates and utilizing an accurate historical average going forward in time helps to achieve a reserve account will have a higher success in meeting expected reserve expenditures.

- > **1.00%** - this is a common annual inflation rate we see being utilized in reserve budgets.  
\*costs double approximately every 71 years at 1.0% annual inflation
- > **3.50%** - the most recent 50-year U.S. historical average annual construction cost inflation rate.  
\*costs double approximately every 21.5 years at 3.5% annual inflation
- > **4.25%** - the most recent 30-year U.S. historical average annual construction cost inflation rate.  
\*costs double approximately every 17.5 years at 4.25% annual inflation

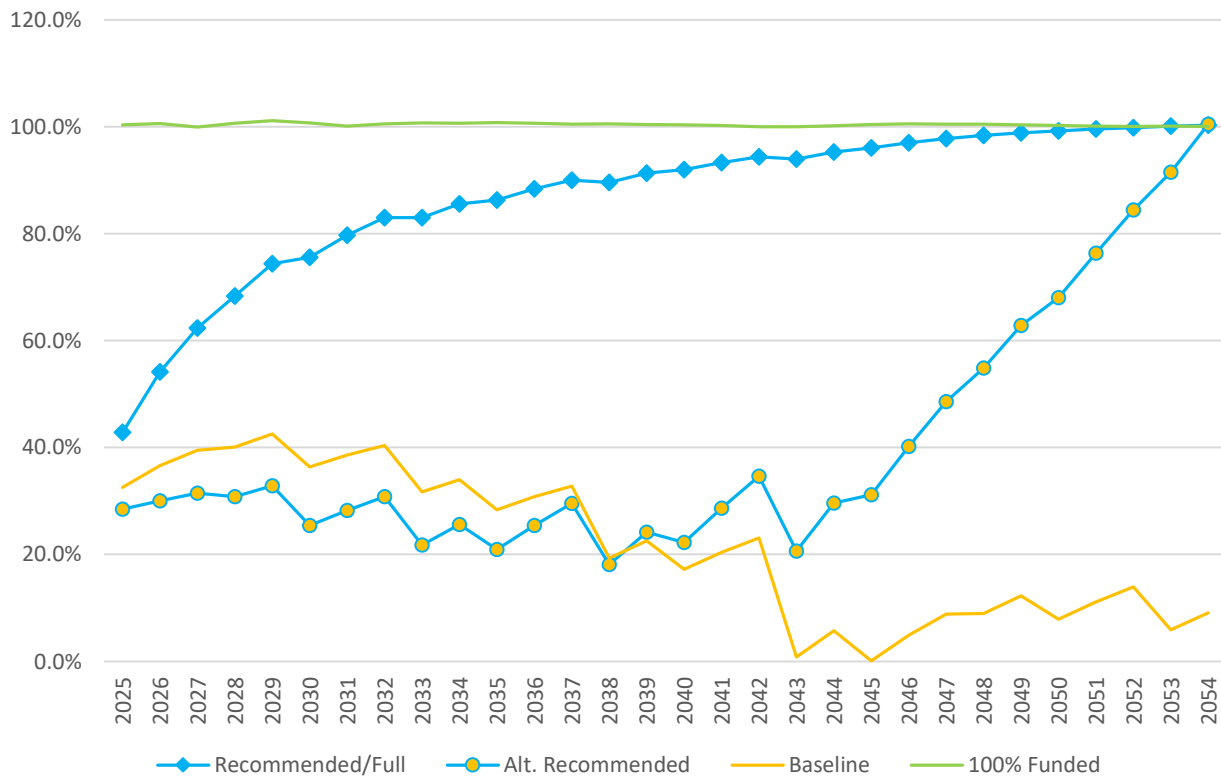
In this reserve study we have used an inflation rate that is well supported by the historical data without being overly conservative. Unless otherwise noted (e.g., variance to specific component inflation rates), we typically use a 50-year historical average which has fluctuated less than the most recent 30-year average.

Inflation factors impacting reserve projects costs, over time, is the number one aspect of reserve budgeting that an adequately funded reserve account must address as time passes. It has been our experience that ignoring the impact of inflationary factors and/or using an annual inflation rate that is significantly lower than historical average (for future projections) will typically result in a much higher risk for reliance on emergency financing (special assessments/loans) due to reserve account balances that do not adequately fund predictable reserve projects. It is also important to remember that inflation of project costs occurs whether a reserve project occurs or not, and is one of the reasons why pushing off a reserve project simply results in a more expensive project later.

Often we see budgets that utilize inflation cost indexes that are not related to construction costs (e.g., the Consumer Price Index - CPI). Please follow the link here to learn more about construction cost indices and mistakes we often see when applying inflation rates to reserve account budgets. (link: <https://www.reservedataanalyst.com/inf> )



## Percent Funded Chart



The above chart compares the funding models by the percentage funded levels over the timeframe of the projections, as calculated at the end of each fiscal year.

The **Recommended/Full Funding Model** increases the Client's reserve account Percent Funded Level to 100% funding within the timeframe of the projections in this report. Once this 100% funded level is reached it is a good indicator that the reserve account is on track to meet its future obligations with minimal risk of reliance on emergency financing or having to defer projects that come due. Note that the Recommended Model is not necessarily a low risk, no risk or ideal model to follow. It simply has a goal of guiding the reserve account to a 100% funded level within the timeframe of projections.

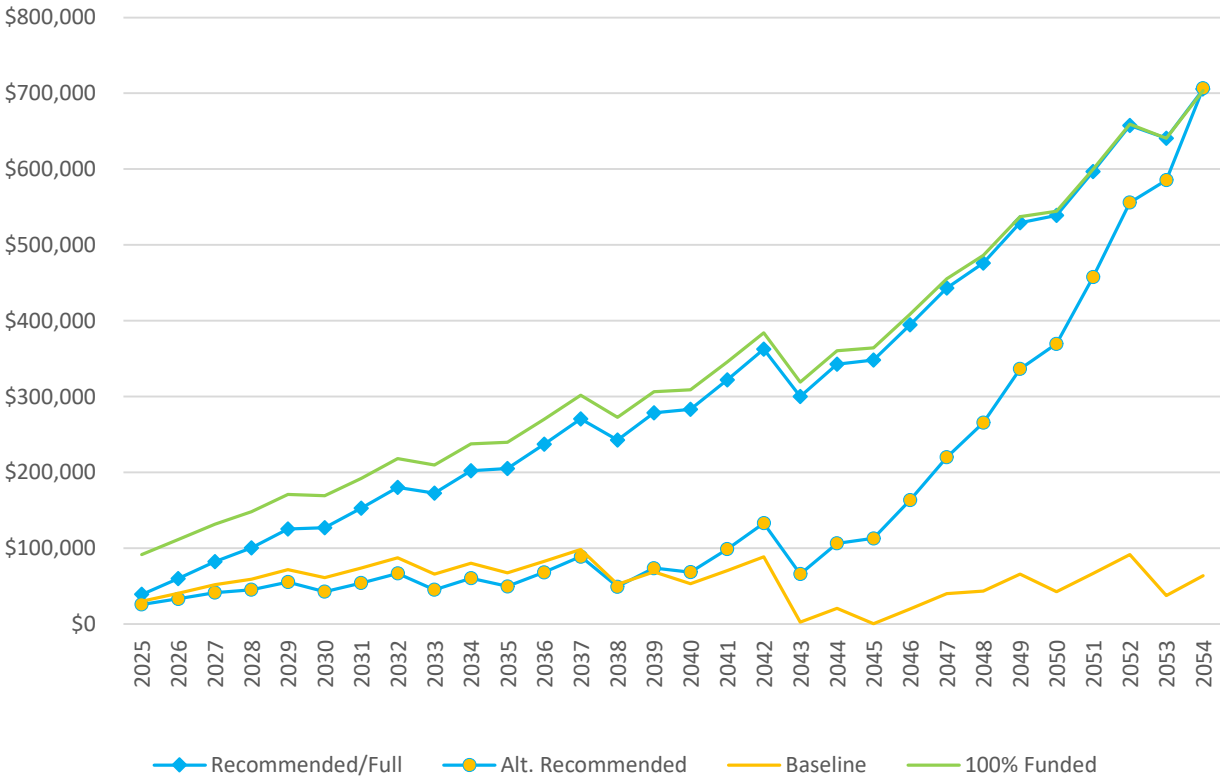
The **Alt. Recommended/Full Funding Model** has been included (if applicable) as an alternative to the regular Recommended Model (which utilizes an annual reserve contribution percentage increase rate that is similar to the inflation rate). This alternative model has a goal of reaching 100% funded by the end of a 30-year period but starts with a higher or lower reserve allocation rate and increases at a significantly higher or lower annual percentage increase (i.e., the annual reserve allocation percentage change is significantly higher or lower than the projected inflation rate) until the reserve account reaches the 100% funded level by the end of the 30-years of projections.

The **Baseline Funding Model** has a goal of only keeping the reserve account cash positive within the timeframe of the projections (i.e., at some point within the timeframe of the projections the reserve account is depleted to near \$0). 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** has a goal of maintaining the reserve account to a minimum of 100% Funded in each year of the projections. This model minimizes risk for reliance on emergency financing and deferred maintenance and places the reserve account on a low-risk path for budgeting of future reserve expenditures.

The **Current Funding Model** (if included here) is based on the reserve allocation rate supplied by the Client as of the date of this study; it has not been independently verified and is assumed to be correct.

# Reserve Account Balance Chart



The chart above compares the annual year-end balance of the reserve account for the respective funding models over the timeframe covered in the projections. Projected reserve account balances (funding model lines) will often have large fluctuations from year to year due to projects occurring in any given year.

There is often an incorrect perception that the reserve account funds grow and just "sit" in the reserve account indefinitely. In actuality the reserve funds should be allowed to accumulate over time so that there are adequate funds when the reserve projects are projected to occur. The math for the fully funded balance and projections does not simply end at the 30-year timeframe of projections in this reserve study.

**Example:** Reserve funds that are projected to be in the reserve account at the end of year 30 of the study are for projected reserve projects in fiscal years 31, 32, 33, 34, etc. Often a peak expense year (one or numerous large reserve projects) will fall outside of the 30-year projections so it may appear to a reader of this study that these funds are "extra" when in fact they are needed for projections that are simply not visible due to the printout stopping at a 30 year timeframe.

The model that departs from this "building reserves" philosophy, by definition, is the Baseline Funding Model which ignores all expenses past the 30-year timeframe of the reserve study (like they simply do not exist) and is the reason it typically indicates a much lower needed reserve allocation rate and reserve account balance. **However**, in updates to the study as these projected reserve projects do begin to fall within the 30-year snapshot they will need to be funded for, often requiring significant increases to the reserve account allocation rate. It is one of the reasons the Baseline Model is a high risk model that is extremely difficult to follow (especially for communities past 20 years of age) for any significant period of time.

## 100% Funded Model

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

While being at a 100% funded level is considered ideal it has been our experience that it is frequently not realistic due to a lack of funds that would need to be deposited into the reserve account to elevate it to a 100% funded level in the initial year of the projections. The initial year allocation percentage increase/decrease is the change from the Client provided current reserve allocation amount.

Beginning Balance: \$38,063											
	YrEnd Inflated Asset Cost	Inflation Rate	Allocation Rate	Allocation % Change	Interest Rate	NET Interest	Special Assess	Annual Expenditures	Year End Account Balance	Year End FFB	YrEnd % Funded
2025	\$371,249	5.00%	\$69,000	1280.00%	5.25%	\$3,023		\$18,425	\$91,661	\$91,370	100.3%
2026	\$389,811	5.00%	\$16,000	-76.81%	5.25%	\$3,672		\$0	\$111,334	\$110,688	100.6%
2027	\$409,302	5.00%	\$16,000	0.00%	5.25%	\$4,343		\$0	\$131,677	\$131,708	100.0%
2028	\$423,627	3.50%	\$16,560	3.50%	5.25%	\$4,881		\$5,142	\$147,976	\$147,024	100.6%
2029	\$438,454	3.50%	\$17,140	3.50%	5.25%	\$5,632		\$0	\$170,747	\$168,760	101.2%
2030	\$453,800	3.50%	\$17,739	3.50%	3.50%	\$3,767		\$22,848	\$169,405	\$168,188	100.7%
2031	\$469,683	3.50%	\$18,360	3.50%	3.50%	\$4,270		\$0	\$192,035	\$191,846	100.1%
2032	\$486,122	3.50%	\$21,250	15.74%	3.50%	\$4,850		\$0	\$218,135	\$216,953	100.5%
2033	\$503,136	3.50%	\$21,994	3.50%	3.50%	\$4,663		\$35,076	\$209,715	\$208,216	100.7%
2034	\$520,746	3.50%	\$22,764	3.50%	3.50%	\$5,286		\$0	\$237,765	\$236,175	100.7%
2035	\$538,972	3.50%	\$23,560	3.50%	3.50%	\$5,325		\$27,137	\$239,514	\$237,751	100.7%
2036	\$557,836	3.50%	\$24,385	3.50%	3.50%	\$6,001		\$0	\$269,900	\$268,217	100.6%
2037	\$577,360	3.50%	\$25,238	3.50%	3.50%	\$6,711		\$0	\$301,849	\$300,524	100.4%
2038	\$597,568	3.50%	\$26,122	3.50%	3.50%	\$6,058		\$61,556	\$272,473	\$271,053	100.5%
2039	\$618,483	3.50%	\$27,036	3.50%	3.50%	\$6,811		\$0	\$306,319	\$305,092	100.4%
2040	\$640,130	3.50%	\$27,982	3.50%	3.50%	\$6,869		\$32,230	\$308,940	\$307,824	100.4%
2041	\$662,534	3.50%	\$28,962	3.50%	3.50%	\$7,684		\$0	\$345,586	\$344,898	100.2%
2042	\$685,723	3.50%	\$29,975	3.50%	3.50%	\$8,540		\$0	\$384,101	\$384,191	100.0%
2043	\$709,723	3.50%	\$31,024	3.50%	3.50%	\$7,096		\$103,056	\$319,166	\$319,149	100.0%
2044	\$734,564	3.50%	\$33,000	6.37%	3.50%	\$8,008		\$0	\$360,174	\$359,480	100.2%
2045	\$760,273	3.50%	\$34,155	3.50%	3.50%	\$8,096		\$38,279	\$364,146	\$362,623	100.4%
2046	\$786,883	3.50%	\$35,350	3.50%	3.50%	\$9,084		\$0	\$408,581	\$406,552	100.5%
2047	\$814,424	3.50%	\$36,588	3.50%	3.50%	\$10,123		\$0	\$455,291	\$453,112	100.5%
2048	\$842,929	3.50%	\$37,868	3.50%	3.50%	\$10,809		\$17,811	\$486,158	\$483,998	100.4%
2049	\$872,431	3.50%	\$39,194	3.50%	3.50%	\$11,946		\$0	\$537,298	\$535,572	100.3%
2050	\$902,966	3.50%	\$40,565	3.50%	3.50%	\$12,107		\$45,464	\$544,506	\$543,107	100.3%
2051	\$934,570	3.50%	\$41,985	3.50%	3.50%	\$13,337		\$0	\$599,828	\$599,216	100.1%
2052	\$967,280	3.50%	\$44,500	5.99%	3.50%	\$14,652		\$0	\$658,980	\$658,587	100.1%
2053	\$1,001,135	3.50%	\$46,058	3.50%	3.50%	\$14,240		\$78,796	\$640,481	\$639,826	100.1%
2054	\$1,036,174	3.50%	\$47,670	3.50%	3.50%	\$15,648		\$0	\$703,799	\$703,353	100.1%
<b>Totals:</b>			<b>\$918,024</b>			<b>\$233,533</b>		<b>\$485,821</b>			

## Recommended/Full Funding Model

We have developed a funding plan which will help steer the reserve account into a high funded range within the 30-year projection timeframe. This Recommended Funding Model (also commonly referred to as the Full Funding Model) requires the Client allocate the recommended allocation amount into the reserve account with annual increases thereafter to offset inflationary factors.

This Recommended Funding Plan Considers 4 Basic Principles; there are adequate reserves when needed, the budget should remain stable but increasing to offset inflationary factors, the costs are fairly distributed over time, and the funding plan must allow the Client to be fiscally responsible. Note that the Recommended Model is not necessarily a low risk, no risk or ideal model to follow (especially if the reserve account is currently significantly underfunded). It simply has a goal of having the reserve account reach 100% funded by the end of a 30-year period. An "ideal" model to follow would be the 100% funded model as this model has the reserve account funded to a minimum 100% funded level each year of the study which is considered an ideal level of funding and overall low risk for having to rely on emergency financing.

Beginning Balance: \$38,063											
	YrEnd Inflated Asset Cost	Inflation Rate	Allocation Rate	Allocation % Change	Interest Rate	NET Interest	Special Assess	Annual Expenditures	Year End Account Balance	Year End FFB	YrEnd % Funded
2025	\$371,249	5.00%	\$18,200	264.00%	5.25%	\$1,291		\$18,425	\$39,129	\$91,370	42.8%
2026	\$389,811	5.00%	\$18,837	3.50%	5.25%	\$1,977		\$0	\$59,943	\$110,688	54.2%
2027	\$409,302	5.00%	\$19,496	3.50%	5.25%	\$2,710		\$0	\$82,149	\$131,708	62.4%
2028	\$423,627	3.50%	\$20,179	3.50%	5.25%	\$3,315		\$5,142	\$100,500	\$147,024	68.4%
2029	\$438,454	3.50%	\$20,885	3.50%	5.25%	\$4,140		\$0	\$125,525	\$168,760	74.4%
2030	\$453,800	3.50%	\$21,616	3.50%	3.50%	\$2,826		\$22,848	\$127,119	\$168,188	75.6%
2031	\$469,683	3.50%	\$22,372	3.50%	3.50%	\$3,399		\$0	\$152,891	\$191,846	79.7%
2032	\$486,122	3.50%	\$23,155	3.50%	3.50%	\$4,003		\$0	\$180,050	\$216,953	83.0%
2033	\$503,136	3.50%	\$23,966	3.50%	3.50%	\$3,842		\$35,076	\$172,781	\$208,216	83.0%
2034	\$520,746	3.50%	\$24,805	3.50%	3.50%	\$4,493		\$0	\$202,079	\$236,175	85.6%
2035	\$538,972	3.50%	\$25,673	3.50%	3.50%	\$4,562		\$27,137	\$205,177	\$237,751	86.3%
2036	\$557,836	3.50%	\$26,571	3.50%	3.50%	\$5,270		\$0	\$237,018	\$268,217	88.4%
2037	\$577,360	3.50%	\$27,501	3.50%	3.50%	\$6,015		\$0	\$270,534	\$300,524	90.0%
2038	\$597,568	3.50%	\$28,464	3.50%	3.50%	\$5,399		\$61,556	\$242,841	\$271,053	89.6%
2039	\$618,483	3.50%	\$29,460	3.50%	3.50%	\$6,192		\$0	\$278,494	\$305,092	91.3%
2040	\$640,130	3.50%	\$30,491	3.50%	3.50%	\$6,293		\$32,230	\$283,048	\$307,824	92.0%
2041	\$662,534	3.50%	\$31,559	3.50%	3.50%	\$7,154		\$0	\$321,761	\$344,898	93.3%
2042	\$685,723	3.50%	\$32,663	3.50%	3.50%	\$8,059		\$0	\$362,483	\$384,191	94.3%
2043	\$709,723	3.50%	\$33,806	3.50%	3.50%	\$6,668		\$103,056	\$299,902	\$319,149	94.0%
2044	\$734,564	3.50%	\$34,990	3.50%	3.50%	\$7,615		\$0	\$342,506	\$359,480	95.3%
2045	\$760,273	3.50%	\$36,214	3.50%	3.50%	\$7,741		\$38,279	\$348,183	\$362,623	96.0%
2046	\$786,883	3.50%	\$37,482	3.50%	3.50%	\$8,770		\$0	\$394,434	\$406,552	97.0%
2047	\$814,424	3.50%	\$38,794	3.50%	3.50%	\$9,851		\$0	\$443,079	\$453,112	97.8%
2048	\$842,929	3.50%	\$40,151	3.50%	3.50%	\$10,583		\$17,811	\$476,003	\$483,998	98.3%
2049	\$872,431	3.50%	\$41,557	3.50%	3.50%	\$11,769		\$0	\$529,329	\$535,572	98.8%
2050	\$902,966	3.50%	\$43,011	3.50%	3.50%	\$11,981		\$45,464	\$538,857	\$543,107	99.2%
2051	\$934,570	3.50%	\$44,516	3.50%	3.50%	\$13,266		\$0	\$596,639	\$599,216	99.6%
2052	\$967,280	3.50%	\$46,075	3.50%	3.50%	\$14,615		\$0	\$657,329	\$658,587	99.8%
2053	\$1,001,135	3.50%	\$47,687	3.50%	3.50%	\$14,240		\$78,796	\$640,460	\$639,826	100.1%
2054	\$1,036,174	3.50%	\$49,356	3.50%	3.50%	\$15,686		\$0	\$705,502	\$703,353	100.3%
<b>Totals:</b>			<b>\$939,533</b>			<b>\$213,727</b>		<b>\$485,821</b>			

## Alternate Recommended Funding Model

This funding model has been included as an alternative to the regular Recommended/Full Funding Model (which utilizes an annual reserve contribution percentage increase rate that is similar to the inflation rate). This alternative model has a goal of reaching 100% funded by the end of a 30-year period but starts with a higher or lower reserve allocation rate and increases at a higher or lower annual allocation percent change (i.e., the annual reserve allocation percentage change is significantly higher or lower than the projected inflation rate - note that the annual allocation percent change column shown in yellow below) until the reserve account reaches the 100% funded level by the end of the 30-years of projections.

It is important to note that there is not a "right or wrong" Recommended/Full Funding Model as mathematically it is a sliding scale between the reserve contribution rate and the annual increase/decrease percent (i.e., a higher initial annual reserve allocation rate will require a lower annual percentage increase and a lower initial annual reserve allocation rate will require a higher annual percentage increase rate to the model to meet the same goal, in this case to be 100% funded by the end of a 30-year period). This type of funding model does not necessarily consider fairness to the membership as a projected allocation rate significantly different than the projected inflation rate, over time, will not follow the actual purchasing power of the dollar in any specific period.

Beginning Balance:		\$38,063									
YrEnd Inflated Asset Cost	Inflation Rate	Allocation Rate	Allocation % Change	Interest Rate	NET Interest	Special Assess	Annual Expenditures	Year End Account Balance	Year End FFB	YrEnd % Funded	
2025	\$371,249	5.00%	\$5,535	10.70%	5.25%	\$859	\$18,425	\$26,032	\$91,370	28.5%	
2026	\$389,811	5.00%	\$6,127	10.70%	5.25%	\$1,097	\$0	\$33,256	\$110,688	30.0%	
2027	\$409,302	5.00%	\$6,783	10.70%	5.25%	\$1,366	\$0	\$41,404	\$131,708	31.4%	
2028	\$423,627	3.50%	\$7,509	10.70%	5.25%	\$1,493	\$5,142	\$45,264	\$147,024	30.8%	
2029	\$438,454	3.50%	\$8,312	10.70%	5.25%	\$1,827	\$0	\$55,403	\$168,760	32.8%	
2030	\$453,800	3.50%	\$9,201	10.70%	3.50%	\$950	\$22,848	\$42,706	\$168,188	25.4%	
2031	\$469,683	3.50%	\$10,186	10.70%	3.50%	\$1,203	\$0	\$54,095	\$191,846	28.2%	
2032	\$486,122	3.50%	\$11,276	10.70%	3.50%	\$1,486	\$0	\$66,857	\$216,953	30.8%	
2033	\$503,136	3.50%	\$12,482	10.70%	3.50%	\$1,007	\$35,076	\$45,270	\$208,216	21.7%	
2034	\$520,746	3.50%	\$13,818	10.70%	3.50%	\$1,344	\$0	\$60,431	\$236,175	25.6%	
2035	\$538,972	3.50%	\$15,297	10.70%	3.50%	\$1,105	\$27,137	\$49,696	\$237,751	20.9%	
2036	\$557,836	3.50%	\$16,933	10.70%	3.50%	\$1,515	\$0	\$68,144	\$268,217	25.4%	
2037	\$577,360	3.50%	\$18,745	10.70%	3.50%	\$1,976	\$0	\$88,865	\$300,524	29.6%	
2038	\$597,568	3.50%	\$20,751	10.70%	3.50%	\$1,093	\$61,556	\$49,153	\$271,053	18.1%	
2039	\$618,483	3.50%	\$22,971	10.70%	3.50%	\$1,640	\$0	\$73,764	\$305,092	24.2%	
2040	\$640,130	3.50%	\$25,429	10.70%	3.50%	\$1,523	\$32,230	\$68,486	\$307,824	22.2%	
2041	\$662,534	3.50%	\$28,150	10.70%	3.50%	\$2,197	\$0	\$98,833	\$344,898	28.7%	
2042	\$685,723	3.50%	\$31,162	10.70%	3.50%	\$2,956	\$0	\$132,952	\$384,191	34.6%	
2043	\$709,723	3.50%	\$34,496	10.70%	3.50%	\$1,464	\$103,056	\$65,856	\$319,149	20.6%	
2044	\$734,564	3.50%	\$38,188	10.70%	3.50%	\$2,366	\$0	\$106,410	\$359,480	29.6%	
2045	\$760,273	3.50%	\$42,274	10.70%	3.50%	\$2,511	\$38,279	\$112,915	\$362,623	31.1%	
2046	\$786,883	3.50%	\$46,797	10.70%	3.50%	\$3,632	\$0	\$163,344	\$406,552	40.2%	
2047	\$814,424	3.50%	\$51,804	10.70%	3.50%	\$4,892	\$0	\$220,040	\$453,112	48.6%	
2048	\$842,929	3.50%	\$57,347	10.70%	3.50%	\$5,903	\$17,811	\$265,479	\$483,998	54.9%	
2049	\$872,431	3.50%	\$63,483	10.70%	3.50%	\$7,480	\$0	\$336,443	\$535,572	62.8%	
2050	\$902,966	3.50%	\$70,276	10.70%	3.50%	\$8,215	\$45,464	\$369,471	\$543,107	68.0%	
2051	\$934,570	3.50%	\$77,796	10.70%	3.50%	\$10,171	\$0	\$457,437	\$599,216	76.3%	
2052	\$967,280	3.50%	\$86,120	10.70%	3.50%	\$12,360	\$0	\$555,917	\$658,587	84.4%	
2053	\$1,001,135	3.50%	\$95,335	10.70%	3.50%	\$13,017	\$78,796	\$585,473	\$639,826	91.5%	
2054	\$1,036,174	3.50%	\$105,536	10.70%	3.50%	\$15,713	\$0	\$706,722	\$703,353	100.5%	
<b>Totals:</b>		<b>\$1,040,120</b>		<b>\$114,360</b>		<b>\$485,821</b>					

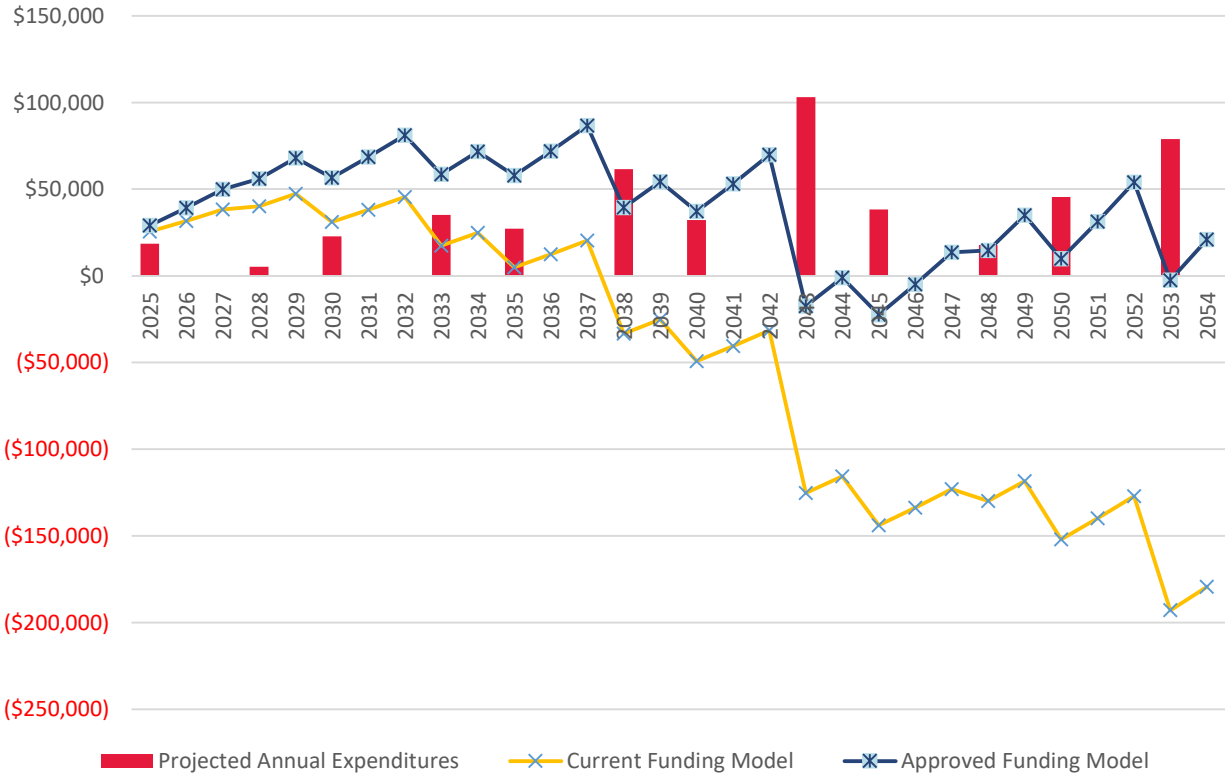
## Baseline Funding Model

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 the projections and does not take into consideration projected expenses that fall outside of the 30-year timeframe of the projections (i.e., longer life components are simply ignored).

This funding model carries a higher risk for reliance on emergency financing specifically if 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 the projections their projected expenditures will have a significant impact on the allocation requirements to keep the reserve account cash positive. Should there be a desire to not fund for longer life component projects (i.e., projects that are set to occur after the 30-year projections) at this time then we suggest setting a goal of at least funding to the Baseline Funding Model which has the goal of only staying cash positive for the 30-year time-frame of the projections. Note the "Year End Account Balance" column (3rd from right) which indicates the year(s) that the reserve account is projected to drop to near **zero** in the reserve account.

Beginning Balance:		\$38,063									
	YrEnd Inflated Asset Cost	Inflation Rate	Allocation Rate	Allocation % Change	Interest Rate	NET Interest	Special Assess	Annual Expenditures	Year End Account Balance	Year End FFB	YrEnd % Funded
2025	\$371,249	5.00%	\$9,125	82.50%	5.25%	\$981		\$18,425	\$29,744	\$91,370	32.6%
2026	\$389,811	5.00%	\$9,444	3.50%	5.25%	\$1,337		\$0	\$40,525	\$110,688	36.6%
2027	\$409,302	5.00%	\$9,775	3.50%	5.25%	\$1,716		\$0	\$52,016	\$131,708	39.5%
2028	\$423,627	3.50%	\$10,117	3.50%	5.25%	\$1,944		\$5,142	\$58,935	\$147,024	40.1%
2029	\$438,454	3.50%	\$10,471	3.50%	5.25%	\$2,367		\$0	\$71,773	\$168,760	42.5%
2030	\$453,800	3.50%	\$10,838	3.50%	3.50%	\$1,359		\$22,848	\$61,121	\$168,188	36.3%
2031	\$469,683	3.50%	\$11,217	3.50%	3.50%	\$1,645		\$0	\$73,983	\$191,846	38.6%
2032	\$486,122	3.50%	\$11,610	3.50%	3.50%	\$1,946		\$0	\$87,539	\$216,953	40.3%
2033	\$503,136	3.50%	\$12,016	3.50%	3.50%	\$1,466		\$35,076	\$65,945	\$208,216	31.7%
2034	\$520,746	3.50%	\$12,436	3.50%	3.50%	\$1,782		\$0	\$80,164	\$236,175	33.9%
2035	\$538,972	3.50%	\$12,872	3.50%	3.50%	\$1,499		\$27,137	\$67,397	\$237,751	28.3%
2036	\$557,836	3.50%	\$13,322	3.50%	3.50%	\$1,836		\$0	\$82,555	\$268,217	30.8%
2037	\$577,360	3.50%	\$13,789	3.50%	3.50%	\$2,191		\$0	\$98,534	\$300,524	32.8%
2038	\$597,568	3.50%	\$14,271	3.50%	3.50%	\$1,165		\$61,556	\$52,414	\$271,053	19.3%
2039	\$618,483	3.50%	\$14,771	3.50%	3.50%	\$1,528		\$0	\$68,713	\$305,092	22.5%
2040	\$640,130	3.50%	\$15,288	3.50%	3.50%	\$1,177		\$32,230	\$52,947	\$307,824	17.2%
2041	\$662,534	3.50%	\$15,823	3.50%	3.50%	\$1,564		\$0	\$70,334	\$344,898	20.4%
2042	\$685,723	3.50%	\$16,376	3.50%	3.50%	\$1,972		\$0	\$88,682	\$384,191	23.1%
2043	\$709,723	3.50%	\$16,950	3.50%	3.50%	\$59		\$103,056	<b>\$2,634</b>	\$319,149	0.8%
2044	\$734,564	3.50%	\$17,543	3.50%	3.50%	\$459		\$0	\$20,636	\$359,480	5.7%
2045	\$760,273	3.50%	\$18,157	3.50%	3.50%	\$12		\$38,279	<b>\$525</b>	\$362,623	0.1%
2046	\$786,883	3.50%	\$18,792	3.50%	3.50%	\$439		\$0	\$19,757	\$406,552	4.9%
2047	\$814,424	3.50%	\$19,450	3.50%	3.50%	\$892		\$0	\$40,098	\$453,112	8.8%
2048	\$842,929	3.50%	\$20,131	3.50%	3.50%	\$965		\$17,811	\$43,383	\$483,998	9.0%
2049	\$872,431	3.50%	\$20,835	3.50%	3.50%	\$1,460		\$0	\$65,678	\$535,572	12.3%
2050	\$902,966	3.50%	\$21,565	3.50%	3.50%	\$950		\$45,464	\$42,729	\$543,107	7.9%
2051	\$934,570	3.50%	\$22,319	3.50%	3.50%	\$1,479		\$0	\$66,528	\$599,216	11.1%
2052	\$967,280	3.50%	\$23,101	3.50%	3.50%	\$2,038		\$0	\$91,667	\$658,587	13.9%
2053	\$1,001,135	3.50%	\$23,909	3.50%	3.50%	\$836		\$78,796	\$37,616	\$639,826	5.9%
2054	\$1,036,174	3.50%	\$24,746	3.50%	3.50%	\$1,418		\$0	\$63,780	\$703,353	9.1%
<b>Totals:</b>			<b>\$471,057</b>			<b>\$40,481</b>		<b>\$485,821</b>			

# Client Funding Model(s) Chart



The above chart provides a visual of the Client Current Funding Model's reserve account projected year end balance and the projected annual 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.

If applicable, any negative account balance shown is for visual representation of deficiency over time.

## Client Current Funding Model

The Current Funding Model is based on the annual reserve allocation rate supplied by the Client as of the date of this study; it has not been independently verified and is assumed to be correct. We have assumed that the Current Model's reserve allocation rate will increase annually based on the below provided allocation percent change, to offset inflationary factors.

Beginning Balance: \$38,063											
	YrEnd Inflated Asset Cost	Inflation Rate	Allocation Rate	Allocation % Change	Interest Rate	NET Interest	Special Assess	Annual Expenditures	Year End Account Balance	Year End FFB	YrEnd % Funded
2025	\$371,249	5.00%	\$5,000	0.00%	5.25%	\$840		\$18,425	\$25,478	\$91,370	27.9%
2026	\$389,811	5.00%	\$5,175	3.50%	5.25%	\$1,046		\$0	\$31,699	\$110,688	28.6%
2027	\$409,302	5.00%	\$5,356	3.50%	5.25%	\$1,264		\$0	\$38,319	\$131,708	29.1%
2028	\$423,627	3.50%	\$5,544	3.50%	5.25%	\$1,321		\$5,142	\$40,041	\$147,024	27.2%
2029	\$438,454	3.50%	\$5,738	3.50%	5.25%	\$1,561		\$0	\$47,340	\$168,760	28.1%
2030	\$453,800	3.50%	\$5,938	3.50%	3.50%	\$692		\$22,848	\$31,122	\$168,188	18.5%
2031	\$469,683	3.50%	\$6,146	3.50%	3.50%	\$847		\$0	\$38,116	\$191,846	19.9%
2032	\$486,122	3.50%	\$6,361	3.50%	3.50%	\$1,011		\$0	\$45,489	\$216,953	21.0%
2033	\$503,136	3.50%	\$6,584	3.50%	3.50%	\$386		\$35,076	\$17,383	\$208,216	8.3%
2034	\$520,746	3.50%	\$6,814	3.50%	3.50%	\$550		\$0	\$24,748	\$236,175	10.5%
2035	\$538,972	3.50%	\$7,053	3.50%	3.50%	\$106		\$27,137	\$4,770	\$237,751	2.0%
2036	\$557,836	3.50%	\$7,300	3.50%	3.50%	\$274		\$0	\$12,344	\$268,217	4.6%
2037	\$577,360	3.50%	\$7,555	3.50%	3.50%	\$453		\$0	\$20,352	\$300,524	6.8%
2038	\$597,568	3.50%	\$7,820	3.50%	3.50%	\$0		\$61,556	-\$33,384	\$271,053	
2039	\$618,483	3.50%	\$8,093	3.50%	3.50%	\$0		\$0	-\$25,291	\$305,092	
2040	\$640,130	3.50%	\$8,377	3.50%	3.50%	\$0		\$32,230	-\$49,144	\$307,824	
2041	\$662,534	3.50%	\$8,670	3.50%	3.50%	\$0		\$0	-\$40,474	\$344,898	
2042	\$685,723	3.50%	\$8,973	3.50%	3.50%	\$0		\$0	-\$31,501	\$384,191	
2043	\$709,723	3.50%	\$9,287	3.50%	3.50%	\$0		\$103,056	-\$125,269	\$319,149	
2044	\$734,564	3.50%	\$9,613	3.50%	3.50%	\$0		\$0	-\$115,657	\$359,480	
2045	\$760,273	3.50%	\$9,949	3.50%	3.50%	\$0		\$38,279	-\$143,987	\$362,623	
2046	\$786,883	3.50%	\$10,297	3.50%	3.50%	\$0		\$0	-\$133,690	\$406,552	
2047	\$814,424	3.50%	\$10,658	3.50%	3.50%	\$0		\$0	-\$123,032	\$453,112	
2048	\$842,929	3.50%	\$11,031	3.50%	3.50%	\$0		\$17,811	-\$129,813	\$483,998	
2049	\$872,431	3.50%	\$11,417	3.50%	3.50%	\$0		\$0	-\$118,396	\$535,572	
2050	\$902,966	3.50%	\$11,816	3.50%	3.50%	\$0		\$45,464	-\$152,043	\$543,107	
2051	\$934,570	3.50%	\$12,230	3.50%	3.50%	\$0		\$0	-\$139,814	\$599,216	
2052	\$967,280	3.50%	\$12,658	3.50%	3.50%	\$0		\$0	-\$127,156	\$658,587	
2053	\$1,001,135	3.50%	\$13,101	3.50%	3.50%	\$0		\$78,796	-\$192,851	\$639,826	
2054	\$1,036,174	3.50%	\$13,559	3.50%	3.50%	\$0		\$0	-\$179,292	\$703,353	
<b>Totals:</b>			<b>\$258,113</b>			<b>\$10,353</b>		<b>\$485,821</b>			



# Approved Funding Model

The Approved Funding Model reserve allocation rate is based on the Client provided information for the reserve allocation rate approved for the initial year of this study. It is assumed the reserve allocation rate will have annual increases to offset inflationary factors.

This Approved funding model has been added after the initial report date for this reserve study was completed and after a vote on the upcoming budget was reportedly taken and approved.

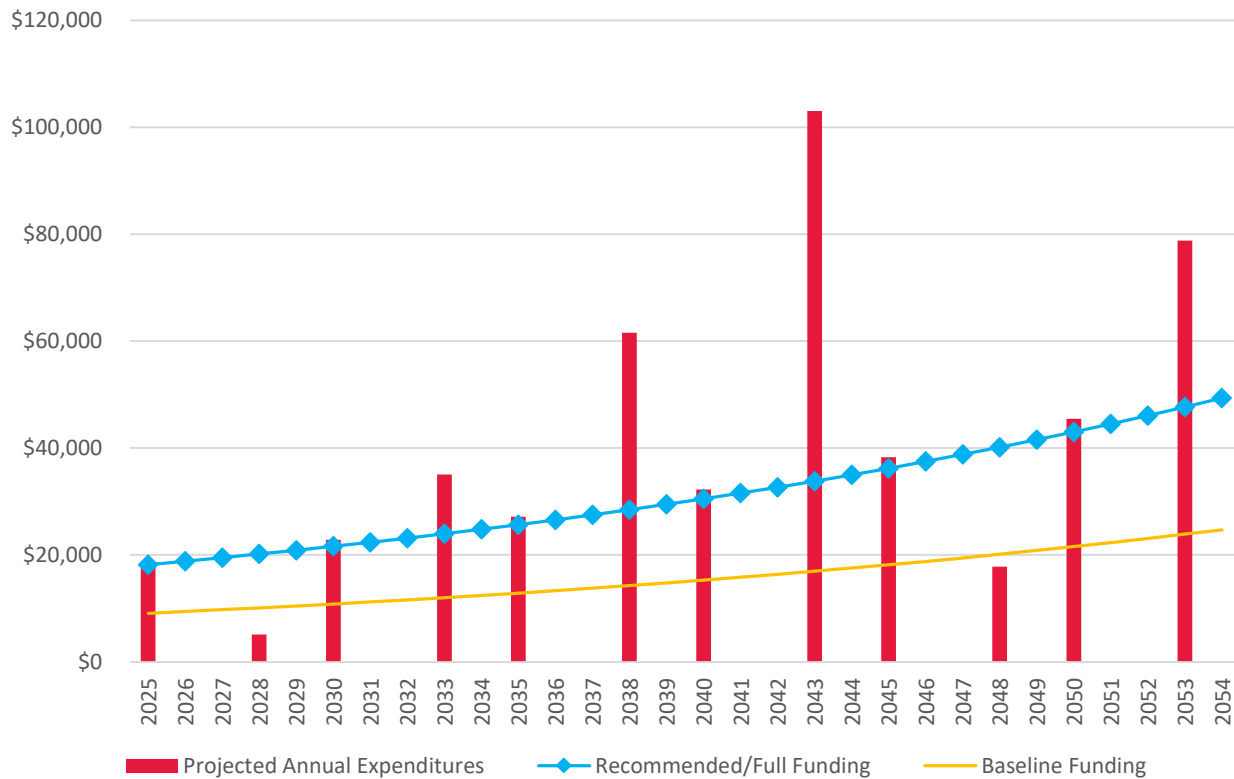
Beginning Balance:		\$38,063									
	YrEnd Inflated Asset Cost	Inflation Rate	Allocation Rate	Allocation % Change	Interest Rate	NET Interest	Special Assess	Annual Expenditures	Year End Account Balance	Year End FFB	YrEnd % Funded
2025	\$371,249	5.00%	\$8,500	70.00%	5.25%	\$960		\$18,425	\$29,098	\$91,370	31.8%
2026	\$389,811	5.00%	\$8,798	3.50%	5.25%	\$1,293		\$0	\$39,188	\$110,688	35.4%
2027	\$409,302	5.00%	\$9,105	3.50%	5.25%	\$1,647		\$0	\$49,941	\$131,708	37.9%
2028	\$423,627	3.50%	\$9,424	3.50%	5.25%	\$1,849		\$5,142	\$56,072	\$147,024	38.1%
2029	\$438,454	3.50%	\$9,754	3.50%	5.25%	\$2,245		\$0	\$68,071	\$168,760	40.3%
2030	\$453,800	3.50%	\$10,095	3.50%	3.50%	\$1,258		\$22,848	\$56,576	\$168,188	33.6%
2031	\$469,683	3.50%	\$10,449	3.50%	3.50%	\$1,524		\$0	\$68,549	\$191,846	35.7%
2032	\$486,122	3.50%	\$10,814	3.50%	3.50%	\$1,805		\$0	\$81,168	\$216,953	37.4%
2033	\$503,136	3.50%	\$11,193	3.50%	3.50%	\$1,303		\$35,076	\$58,587	\$208,216	28.1%
2034	\$520,746	3.50%	\$11,585	3.50%	3.50%	\$1,596		\$0	\$71,767	\$236,175	30.4%
2035	\$538,972	3.50%	\$11,990	3.50%	3.50%	\$1,288		\$27,137	\$57,908	\$237,751	24.4%
2036	\$557,836	3.50%	\$12,410	3.50%	3.50%	\$1,599		\$0	\$71,917	\$268,217	26.8%
2037	\$577,360	3.50%	\$12,844	3.50%	3.50%	\$1,927		\$0	\$86,688	\$300,524	28.8%
2038	\$597,568	3.50%	\$13,294	3.50%	3.50%	\$874		\$61,556	\$39,299	\$271,053	14.5%
2039	\$618,483	3.50%	\$13,759	3.50%	3.50%	\$1,207		\$0	\$54,265	\$305,092	17.8%
2040	\$640,130	3.50%	\$14,240	3.50%	3.50%	\$825		\$32,230	\$37,100	\$307,824	12.1%
2041	\$662,534	3.50%	\$14,739	3.50%	3.50%	\$1,179		\$0	\$53,018	\$344,898	15.4%
2042	\$685,723	3.50%	\$15,255	3.50%	3.50%	\$1,552		\$0	\$69,825	\$384,191	18.2%
2043	\$709,723	3.50%	\$15,789	3.50%	3.50%	\$0		\$103,056	-\$17,442	\$319,149	
2044	\$734,564	3.50%	\$16,341	3.50%	3.50%	\$0		\$0	-\$1,101	\$359,480	
2045	\$760,273	3.50%	\$16,913	3.50%	3.50%	\$0		\$38,279	-\$22,467	\$362,623	
2046	\$786,883	3.50%	\$17,505	3.50%	3.50%	\$0		\$0	-\$4,962	\$406,552	
2047	\$814,424	3.50%	\$18,118	3.50%	3.50%	\$299		\$0	\$13,455	\$453,112	3.0%
2048	\$842,929	3.50%	\$18,752	3.50%	3.50%	\$327		\$17,811	\$14,724	\$483,998	3.0%
2049	\$872,431	3.50%	\$19,408	3.50%	3.50%	\$776		\$0	\$34,908	\$535,572	6.5%
2050	\$902,966	3.50%	\$20,088	3.50%	3.50%	\$217		\$45,464	\$9,749	\$543,107	1.8%
2051	\$934,570	3.50%	\$20,791	3.50%	3.50%	\$694		\$0	\$31,234	\$599,216	5.2%
2052	\$967,280	3.50%	\$21,518	3.50%	3.50%	\$1,200		\$0	\$53,952	\$658,587	8.2%
2053	\$1,001,135	3.50%	\$22,271	3.50%	3.50%	\$0		\$78,796	-\$2,573	\$639,826	
2054	\$1,036,174	3.50%	\$23,051	3.50%	3.50%	\$466		\$0	\$20,944	\$703,353	3.0%
<b>Totals:</b>		<b>\$438,793</b>		<b>\$29,909</b>		<b>\$485,821</b>					

## Full Funded Balance Calculations (Beginning FY)

Version: Final

ID	Component Description	<i>Current Cost</i>	X	<i>Effective Age</i>	/	<i>Useful Life</i>	=	<i>FFB</i>
							<b>Total FFB</b>	<b>\$92,066</b>
<b>&gt;&gt; Building Exterior Components &lt;&lt;</b>								
1270	Awning (metal) - Replace	\$18,900	X	7	/	50	=	\$2,646
1940	Building Exteriors (wood) - Paint & Seal	\$18,425	X	5	/	5	=	\$18,425
1950	Building Exteriors (wood) - Replace	\$86,625	X	7	/	50	=	\$12,128
4820	Lights (exterior) - Replace	\$2,970	X	7	/	25	=	\$832
6970	Roof (asph.shingle) - Replace	\$27,400	X	7	/	25	=	\$7,672
7080	Roof (metal) - Replace	\$1,850	X	7	/	50	=	\$259
7310	Roof Gutters & Downs. - Replace	\$5,445	X	7	/	25	=	\$1,525
7360	Roof Skylights - Replace	\$7,000	X	7	/	25	=	\$1,960
8400	Windows - Replace	\$65,560	X	7	/	50	=	\$9,178
<b>&gt;&gt; Site Components &lt;&lt;</b>								
5280	Backflow Valve (domestic water) - Replace	\$3,250	X	7	/	25	=	\$910
2160	Concrete Sidewalks (public) - 15% Replace	\$1,148	X	0	/	5	=	Delayed
2200	Concrete Surfaces (private) - 15% Replace	\$2,142	X	0	/	5	=	Delayed
3180	Fence (chain link 6') - Replace	\$1,602	X	2	/	45	=	\$71
3390	Fence (wood 6') - Paint/Stain	\$2,282	X	2	/	5	=	\$913
3370	Fence (wood 6') - Replace	\$12,225	X	12	/	25	=	\$5,868
4470	Irrigation Backflow Valves - Replace	\$950	X	7	/	20	=	\$333
4530	Irrigation Piping - Replace	\$1,162	X	7	/	40	=	\$203
4620	Landscape Site Drainage - Replace	\$8,000	X	7	/	20	=	\$2,800
4640	Landscaping - Refurbish	\$3,728	X	7	/	20	=	\$1,305
4940	Mailbox Cluster - Replace	\$1,500	X	7	/	25	=	\$420
5120	Pavers (sand set) - Replace	\$23,230	X	12	/	20	=	\$13,938
5220	Planter Boxes - Waterproofing	\$5,061	X	7	/	20	=	\$1,771
6280	Railings (metal) - Paint	\$2,160	X	7	/	10	=	\$1,512
6290	Railings (metal) - Replace	\$22,560	X	7	/	50	=	\$3,158
6870	Retaining Walls (masonry) - Replace	\$15,895	X	7	/	40	=	\$2,782
5440	Sewer Lateral Lines (side sewer) - Replace	\$6,250	X	7	/	60	=	\$729
5490	Water Lateral Lines - Replace	\$6,250	X	7	/	60	=	\$729

## Projected Annual Expenditures Chart



**Total Projected Expenses Over the 30-Year Timeframe of the Reserve Study: \$485,821**

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. A breakdown of what projects are included in each years' projected expenditures can be found on the Projected Annual Expenditures List pages in this reserve study (page number in Table of Contents).

One of the greatest challenges when planning for reserve budgeting is creating and implementing a funding model that is stable and fair while also adequate to cover reserve project expenditures that are typically infrequent and erratic. This is particularly true for reserve accounts that drop to low levels of funding; there will be a need to catch up the reserve account to a more suitable level while also being as fair and stable as possible as time progresses.

We have created numerous funding models with various goals in mind; the above models (Recommended/Full & Baseline) adhere to the principle of having stability going forward in time while also covering the projected annual reserve expenditures. Their respective annual allocation rates (lines on the chart) are shown compared to the annual reserve expenditures (columns on the chart) within the timeframe of the projections. Note the relative stableness of the annual funding model allocation rates versus the infrequent and erratic nature of the reserve expenditures.

## Projected Annual Expenditures List

Asset ID	Projected Expenditures By Year	Projected Costs
	<b>2025</b>	
1940	Building Exteriors (wood) - Paint & Seal	\$18,425
	<b>Total for Year 2025</b>	<b>\$18,425</b>
	<b>2026</b>	
	<b>Total for Year 2026</b>	<b>\$0</b>
	<b>2027</b>	
	<b>Total for Year 2027</b>	<b>\$0</b>
	<b>2028</b>	
3390	Fence (wood 6') - Paint/Stain	\$2,642
6280	Railings (metal) - Paint	\$2,500
	<b>Total for Year 2028</b>	<b>\$5,142</b>
	<b>2029</b>	
	<b>Total for Year 2029</b>	<b>\$0</b>
	<b>2030</b>	
1940	Building Exteriors (wood) - Paint & Seal	\$22,848
	<b>Total for Year 2030</b>	<b>\$22,848</b>
	<b>2031</b>	
	<b>Total for Year 2031</b>	<b>\$0</b>
	<b>2032</b>	
	<b>Total for Year 2032</b>	<b>\$0</b>
	<b>2033</b>	
3390	Fence (wood 6') - Paint/Stain	\$3,138
5120	Pavers (sand set) - Replace	\$31,939
	<b>Total for Year 2033</b>	<b>\$35,076</b>
	<b>2034</b>	
	<b>Total for Year 2034</b>	<b>\$0</b>
	<b>2035</b>	
1940	Building Exteriors (wood) - Paint & Seal	\$27,137
	<b>Total for Year 2035</b>	<b>\$27,137</b>
	<b>2036</b>	
	<b>Total for Year 2036</b>	<b>\$0</b>
	<b>2037</b>	
	<b>Total for Year 2037</b>	<b>\$0</b>
	<b>2038</b>	
2160	Concrete Sidewalks (public) - 15% Replace	\$1,875
2200	Concrete Surfaces (private) - 15% Replace	\$3,498
3390	Fence (wood 6') - Paint/Stain	\$3,726
3370	Fence (wood 6') - Replace	\$19,963
4470	Irrigation Backflow Valves - Replace	\$1,551
4620	Landscape Site Drainage - Replace	\$13,064
4640	Landscaping - Refurbish	\$6,088
5220	Planter Boxes - Waterproofing	\$8,264
6280	Railings (metal) - Paint	\$3,527
	<b>Total for Year 2038</b>	<b>\$61,556</b>
	<b>2039</b>	
	<b>Total for Year 2039</b>	<b>\$0</b>
	<b>2040</b>	
1940	Building Exteriors (wood) - Paint & Seal	\$32,230
	<b>Total for Year 2040</b>	<b>\$32,230</b>

## Projected Annual Expenditures List

Asset ID	Projected Expenditures By Year	Projected Costs
<b>2041</b>		
<b>Total for Year 2041</b>		<b>\$0</b>
<b>2042</b>		
<b>Total for Year 2042</b>		<b>\$0</b>
<b>2043</b>		
4820	Lights (exterior) - Replace	\$5,760
6970	Roof (asph.shingle) - Replace	\$53,140
7310	Roof Gutters & Downs. - Replace	\$10,560
7360	Roof Skylights - Replace	\$13,576
5280	Backflow Valve (domestic water) - Replace	\$6,303
2160	Concrete Sidewalks (public) - 15% Replace	\$2,227
2200	Concrete Surfaces (private) - 15% Replace	\$4,154
3390	Fence (wood 6') - Paint/Stain	\$4,426
4940	Mailbox Cluster - Replace	\$2,909
<b>Total for Year 2043</b>		<b>\$103,056</b>
<b>2044</b>		
<b>Total for Year 2044</b>		<b>\$0</b>
<b>2045</b>		
1940	Building Exteriors (wood) - Paint & Seal	\$38,279
<b>Total for Year 2045</b>		<b>\$38,279</b>
<b>2046</b>		
<b>Total for Year 2046</b>		<b>\$0</b>
<b>2047</b>		
<b>Total for Year 2047</b>		<b>\$0</b>
<b>2048</b>		
2160	Concrete Sidewalks (public) - 15% Replace	\$2,645
2200	Concrete Surfaces (private) - 15% Replace	\$4,934
3390	Fence (wood 6') - Paint/Stain	\$5,256
6280	Railings (metal) - Paint	\$4,975
<b>Total for Year 2048</b>		<b>\$17,811</b>
<b>2049</b>		
<b>Total for Year 2049</b>		<b>\$0</b>
<b>2050</b>		
1940	Building Exteriors (wood) - Paint & Seal	\$45,464
<b>Total for Year 2050</b>		<b>\$45,464</b>
<b>2051</b>		
<b>Total for Year 2051</b>		<b>\$0</b>
<b>2052</b>		
<b>Total for Year 2052</b>		<b>\$0</b>
<b>2053</b>		
2160	Concrete Sidewalks (public) - 15% Replace	\$3,142
2200	Concrete Surfaces (private) - 15% Replace	\$5,860
3390	Fence (wood 6') - Paint/Stain	\$6,243
5120	Pavers (sand set) - Replace	\$63,552
<b>Total for Year 2053</b>		<b>\$78,796</b>
<b>2054</b>		
<b>Total for Year 2054</b>		<b>\$0</b>

Projected Annual Expenditures Spreadsheet

				Annual Totals	\$18,425	\$0	\$0	\$5,142	\$0	\$22,848
Component Description	Asset ID	Useful Life	Remain. UL	Current Cost	2025	2026	2027	2028	2029	2030
>> Building Exterior Components <<										
Awning (metal) - Replace	1270	50	43	\$18,900						
Building Exteriors (wood) - Paint & Seal	1940	5	0	\$18,425	\$18,425					\$22,848
Building Exteriors (wood) - Replace	1950	50	43	\$86,625						
Lights (exterior) - Replace	4820	25	18	\$2,970						
Roof (asph.shingle) - Replace	6970	25	18	\$27,400						
Roof (metal) - Replace	7080	50	43	\$1,850						
Roof Gutters & Downs. - Replace	7310	25	18	\$5,445						
Roof Skylights - Replace	7360	25	18	\$7,000						
Windows - Replace	8400	50	43	\$65,560						
>> Site Components <<										
Backflow Valve (domestic water) - Replace	5280	25	18	\$3,250						
Concrete Sidewalks (public) - 15% Replace	2160	5	13	\$1,148						
Concrete Surfaces (private) - 15% Replace	2200	5	13	\$2,142						
Fence (chain link 6') - Replace	3180	45	43	\$1,602						
Fence (wood 6') - Paint/Stain	3390	5	3	\$2,282				\$2,642		
Fence (wood 6') - Replace	3370	25	13	\$12,225						
Irrigation Backflow Valves - Replace	4470	20	13	\$950						
Irrigation Piping - Replace	4530	40	33	\$1,162						
Landscape Site Drainage - Replace	4620	20	13	\$8,000						
Landscaping - Refurbish	4640	20	13	\$3,728						
Mailbox Cluster - Replace	4940	25	18	\$1,500						
Pavers (sand set) - Replace	5120	20	8	\$23,230						
Planter Boxes - Waterproofing	5220	20	13	\$5,061						
Railings (metal) - Paint	6280	10	3	\$2,160				\$2,500		
Railings (metal) - Replace	6290	50	43	\$22,560						
Retaining Walls (masonry) - Replace	6870	40	33	\$15,895						
Sewer Lateral Lines (side sewer) - Replace	5440	60	53	\$6,250						
Water Lateral Lines - Replace	5490	60	53	\$6,250						

Projected Annual Expenditures Spreadsheet

		\$0	\$0	\$35,076	\$0	\$27,137	\$0	\$0	\$61,556	\$0
Component Description	Asset ID	2031	2032	2033	2034	2035	2036	2037	2038	2039
>> Building Exterior Components <<										
Awning (metal) - Replace	1270									
Building Exteriors (wood) - Paint & Seal	1940					\$27,137				
Building Exteriors (wood) - Replace	1950									
Lights (exterior) - Replace	4820									
Roof (asph.shingle) - Replace	6970									
Roof (metal) - Replace	7080									
Roof Gutters & Downs. - Replace	7310									
Roof Skylights - Replace	7360									
Windows - Replace	8400									
>> Site Components <<										
Backflow Valve (domestic water) - Replace	5280									
Concrete Sidewalks (public) - 15% Replace	2160								\$1,875	
Concrete Surfaces (private) - 15% Replace	2200								\$3,498	
Fence (chain link 6') - Replace	3180									
Fence (wood 6') - Paint/Stain	3390			\$3,138					\$3,726	
Fence (wood 6') - Replace	3370								\$19,963	
Irrigation Backflow Valves - Replace	4470								\$1,551	
Irrigation Piping - Replace	4530									
Landscape Site Drainage - Replace	4620								\$13,064	
Landscaping - Refurbish	4640								\$6,088	
Mailbox Cluster - Replace	4940									
Pavers (sand set) - Replace	5120			\$31,939						
Planter Boxes - Waterproofing	5220								\$8,264	
Railings (metal) - Paint	6280								\$3,527	
Railings (metal) - Replace	6290									
Retaining Walls (masonry) - Replace	6870									
Sewer Lateral Lines (side sewer) - Replace	5440									
Water Lateral Lines - Replace	5490									

Projected Annual Expenditures Spreadsheet

		\$32,230	\$0	\$0	\$103,056	\$0	\$38,279	\$0	\$0	\$17,811
Component Description	Asset ID	2040	2041	2042	2043	2044	2045	2046	2047	2048
>> Building Exterior Components <<										
Awning (metal) - Replace	1270									
Building Exteriors (wood) - Paint & Seal	1940	\$32,230					\$38,279			
Building Exteriors (wood) - Replace	1950									
Lights (exterior) - Replace	4820				\$5,760					
Roof (asph.shingle) - Replace	6970				\$53,140					
Roof (metal) - Replace	7080									
Roof Gutters & Downs. - Replace	7310				\$10,560					
Roof Skylights - Replace	7360				\$13,576					
Windows - Replace	8400									
>> Site Components <<										
Backflow Valve (domestic water) - Replace	5280				\$6,303					
Concrete Sidewalks (public) - 15% Replace	2160				\$2,227					\$2,645
Concrete Surfaces (private) - 15% Replace	2200				\$4,154					\$4,934
Fence (chain link 6') - Replace	3180									
Fence (wood 6') - Paint/Stain	3390				\$4,426					\$5,256
Fence (wood 6') - Replace	3370									
Irrigation Backflow Valves - Replace	4470									
Irrigation Piping - Replace	4530									
Landscape Site Drainage - Replace	4620									
Landscaping - Refurbish	4640									
Mailbox Cluster - Replace	4940				\$2,909					
Pavers (sand set) - Replace	5120									
Planter Boxes - Waterproofing	5220									
Railings (metal) - Paint	6280									\$4,975
Railings (metal) - Replace	6290									
Retaining Walls (masonry) - Replace	6870									
Sewer Lateral Lines (side sewer) - Replace	5440									
Water Lateral Lines - Replace	5490									



Projected Annual Expenditures Spreadsheet

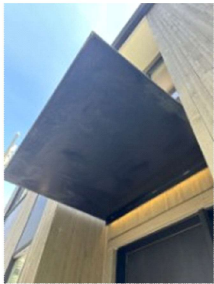
		\$0	\$45,464	\$0	\$0	\$78,796	\$0
Component Description	Asset ID	2049	2050	2051	2052	2053	2054
>> Building Exterior Components <<							
Awning (metal) - Replace	1270						
Building Exteriors (wood) - Paint & Seal	1940		\$45,464				
Building Exteriors (wood) - Replace	1950						
Lights (exterior) - Replace	4820						
Roof (asph.shingle) - Replace	6970						
Roof (metal) - Replace	7080						
Roof Gutters & Downs. - Replace	7310						
Roof Skylights - Replace	7360						
Windows - Replace	8400						
>> Site Components <<							
Backflow Valve (domestic water) - Replace	5280						
Concrete Sidewalks (public) - 15% Replace	2160					\$3,142	
Concrete Surfaces (private) - 15% Replace	2200					\$5,860	
Fence (chain link 6') - Replace	3180						
Fence (wood 6') - Paint/Stain	3390					\$6,243	
Fence (wood 6') - Replace	3370						
Irrigation Backflow Valves - Replace	4470						
Irrigation Piping - Replace	4530						
Landscape Site Drainage - Replace	4620						
Landscaping - Refurbish	4640						
Mailbox Cluster - Replace	4940						
Pavers (sand set) - Replace	5120					\$63,552	
Planter Boxes - Waterproofing	5220						
Railings (metal) - Paint	6280						
Railings (metal) - Replace	6290						
Retaining Walls (masonry) - Replace	6870						
Sewer Lateral Lines (side sewer) - Replace	5440						
Water Lateral Lines - Replace	5490						

**Awning (metal) - Replace**

Asset ID	1270	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Building Exterior Components	Repeat Count Limit	
Category	Roofing System	Next Replacement Year	2068
Install / Allocate Year	2018	Units	140 sf
Useful Life (UL)	50	Unit Cost	\$135.00
Remaining UL	43	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$18,900

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$3,175	\$3,751	\$4,376	\$4,982	\$5,625	\$6,307	\$7,030	\$7,796	\$8,606	\$9,464
Inflation Rate for Awning (metal) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2068	\$82,965
*Next replace year then only within timeframe of this study*	

**Comments for Awning (metal) - Replace**

Metal awning appears to be deteriorating at a rate typical of their age. We recommend budgeting for replacement at the timeframe indicated due to deterioration to this component which comes with constant exposure to the elements.

**Building Exteriors (wood) - Paint & Seal**

Asset ID	1940	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Building Exterior Components	Repeat Count Limit	
Category	Building Exteriors	Next Replacement Year	2025
Install / Allocate Year	2018	Units	5,500 gsf
Useful Life (UL)	5	Unit Cost	\$3.35
Remaining UL	0	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$18,425

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$3,869	\$8,125	\$12,798	\$17,661	\$22,848	\$4,730	\$9,790	\$15,199	\$20,975	\$27,137
Inflation Rate for Building Exteriors (wood) - Paint & Seal Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2025	\$18,425
2030	\$22,848
2035	\$27,137
2040	\$32,230
*Next replace year then only within timeframe of this study*	

**Comments for Building Exteriors (wood) - Paint & Seal**

Exterior paint appears to be deteriorating at a rate typical of its age and is currently in need of a new coating/sealing. As routine maintenance, inspect regularly and touch up/repair locally as needed using operating funds. Typical paint cycles for wood surfaces are between five to seven years depending upon surface preparation, material quality, application methods, site and weather conditions. Removal and replacement of sealants where applicable with high quality product is important part of surface preparation. Repair areas as needed prior to painting.

**Building Exteriors (wood) - Replace**

Asset ID	1950	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Building Exterior Components	Repeat Count Limit	
Category	Building Exteriors	Next Replacement Year	2068
Install / Allocate Year	2018	Units	5,500 gsf
Useful Life (UL)	50	Unit Cost	\$15.75
Remaining UL	43	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$86,625

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$14,553	\$17,191	\$20,056	\$22,834	\$25,781	\$28,907	\$32,220	\$35,730	\$39,446	\$43,378
Inflation Rate for Building Exteriors (wood) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2068	\$380,258
*Next replace year then only within timeframe of this study*	

**Comments for Building Exteriors (wood) - Replace**

Exterior wood building surfaces appear to be deteriorating at a rate typical of their age. This component is included for replacement of the wood siding and trim which will deteriorate and need replacement along with the underlying weather resistant barrier.

Regular paint cycles and sealing (caulking) where necessary will maximize the useful life of this component as paint/sealing prevents moisture intrusion. Note that cost estimate does not take into account any underlying rot/mold issues that may be present and in need of repair before new siding can be installed. We have not adjusted the useful life to coincide with the paint component at this time as the paint cycle appears to be off a typical 5 year cycle and will likely change over time.

**Lights (exterior) - Replace**

Asset ID	4820	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Building Exterior Components	Repeat Count Limit	
Category	Lighting	Next Replacement Year	2043
Install / Allocate Year	2018	Units	22 ea
Useful Life (UL)	25	Unit Cost	\$135.00
Remaining UL	18	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$2,970

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$998	\$1,179	\$1,375	\$1,566	\$1,768	\$1,982	\$2,209	\$2,450	\$2,705	\$2,975
Inflation Rate for Lights (exterior) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2043	\$5,760
*Next replace year then only within timeframe of this study*	

**Comments for Lights (exterior) - Replace**

Exterior lights appear to be deteriorating at a rate typical of their age. Observed during daylight hours; 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 to plan for replacement at roughly the time frame indicated for periodic aesthetic updating, cost efficiency and consistent quality/appearance.

Roof (asph.shingle) - Replace

Asset ID	6970	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Building Exterior Components	Repeat Count Limit	
Category	Roofing System	Next Replacement Year	2043
Install / Allocate Year	2018	Units	40 sq
Useful Life (UL)	25	Unit Cost	\$685.00
Remaining UL	18	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$27,400

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$9,206	\$10,875	\$12,688	\$14,445	\$16,309	\$18,287	\$20,383	\$22,603	\$24,954	\$27,442
Inflation Rate for Roof (asph.shingle) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

Photo Inventory



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2043	\$53,140
*Next replace year then only within timeframe of this study*	

Comments for Roof (asph.shingle) - Replace

Appears to be deteriorating at a rate typical of its age based on our limited scope visual inspection. As routine maintenance, we recommend professional inspections at least twice annually and after windstorms. Promptly replace any damaged/missing shingles or any other repair needed to ensure waterproof integrity of roof. Keep gutters and downspouts clear and free of debris. Plan for replacement at roughly the time frame indicated. Cost estimates include removal of old roofing materials and replacement of flashing. Underlying rot/mold issues that may be present have not been considered in the cost estimate as it will not be known until the roof is removed, the extent of this damage (if any). Roof Vendors will typically include verbiage in their bid/estimate that the cost does not include any necessary repairs to sheathing that may be found. A common budgeting mistake we see is pushing

Continued on Next Page ...

Comments for Roof (asph.shingle) - Replace ... Continued

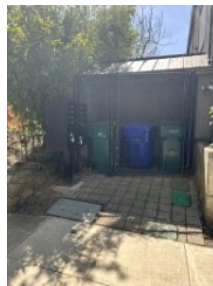
out the roof replacement project well past the Roof Vendor's recommended replacement date only to have a much higher cost related to moisture intrusion issues (e.g., mold, rot) when the roof is eventually replaced.

**Roof (metal) - Replace**

Asset ID	7080	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Building Exterior Components	Repeat Count Limit	
Category	Roofing System	Next Replacement Year	2068
Install / Allocate Year	2018	Units	1 sq
Useful Life (UL)	50	Unit Cost	\$1,850.00
Remaining UL	43	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$1,850

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$311	\$367	\$428	\$488	\$551	\$617	\$688	\$763	\$842	\$926
Inflation Rate for Roof (metal) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2068	\$8,121
*Next replace year then only within timeframe of this study*	

**Comments for Roof (metal) - Replace**

Metal roof (located at trash enclosure) appears to be deteriorating at a rate typical of its age. We suggest inspecting regularly along with other roof components, repairing promptly as necessary to ensure that the water proof integrity of the building is maintained. Metal roofing typically has a long useful life if adequately installed and maintained over the years. Underlying rot/mold issues that may be present have not been considered in the cost estimate as it will not be known until the roof is removed, the extent of this damage (if any). Roof Vendors will typically include verbiage in their bid/estimate that the cost does not include any necessary repairs to sheathing that may be found. A common budgeting mistake we see is pushing out the roof replacement project well past the Roof Vendor’s recommended replacement date only to have a much higher cost related to moisture intrusion

Continued on Next Page ...



Comments for Roof (metal) - Replace ... Continued

issues (e.g., mold, rot) when the roof is eventually replaced.

**Roof Gutters & Downs. - Replace**

Asset ID	7310	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Building Exterior Components	Repeat Count Limit	
Category	Roofing System	Next Replacement Year	2043
Install / Allocate Year	2018	Units	396 lf
Useful Life (UL)	25	Unit Cost	\$13.75
Remaining UL	18	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$5,445

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$1,830	\$2,161	\$2,521	\$2,871	\$3,241	\$3,634	\$4,051	\$4,492	\$4,959	\$5,453
Inflation Rate for Roof Gutters & Downs. - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2043	\$10,560
*Next replace year then only within timeframe of this study*	

**Comments for Roof Gutters & Downs. - Replace**

Appear to be deteriorating at a rate typical of their age based our limited scope visual inspection. As routine maintenance, inspect regularly, keep gutters and downspouts free of debris. Repair locally as needed from general operating funds.

**Roof Skylights - Replace**

Asset ID	7360	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Building Exterior Components	Repeat Count Limit	
Category	Roofing System	Next Replacement Year	2043
Install / Allocate Year	2018	Units	56 sf
Useful Life (UL)	25	Unit Cost	\$125.00
Remaining UL	18	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$7,000

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$2,352	\$2,778	\$3,241	\$3,690	\$4,167	\$4,672	\$5,207	\$5,775	\$6,375	\$7,011
Inflation Rate for Roof Skylights - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2043	\$13,576
*Next replace year then only within timeframe of this study*	

**Comments for Roof Skylights - Replace**

Appear to be deteriorating at a rate typical of their age and no visible leaks readily apparent (recent \$1,500 repair was reportedly made on one of the skylights). No widespread problems indicated. Inspect regularly, repair/replace individually as needed to maintain water proof integrity of building envelope. Best to plan for widespread replacement at the same time as roof cycles to ensure quality weatherproofing is maintained.

**Windows - Replace**

Asset ID	8400	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Building Exterior Components	Repeat Count Limit	
Category	Windows	Next Replacement Year	2068
Install / Allocate Year	2018	Units	596 sf
Useful Life (UL)	50	Unit Cost	\$110.00
Remaining UL	43	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$65,560

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$11,014	\$13,010	\$15,179	\$17,281	\$19,512	\$21,878	\$24,385	\$27,041	\$29,854	\$32,830
Inflation Rate for Windows - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2068	\$287,789
*Next replace year then only within timeframe of this study*	

**Comments for Windows - Replace**

The windows appear to be deteriorating at a rate typical of their age. No reported problems such as water intrusion. As routine maintenance, we recommend regular professional inspections and prompt repair as needed to ensure building waterproofing and help prevent structural damage. If properly installed without defect, plan to replace at roughly the time frame indicated.

**Backflow Valve (domestic water) - Replace**

Asset ID	5280	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Plumbing	Next Replacement Year	2043
Install / Allocate Year	2018	Units	1 ea
Useful Life (UL)	25	Unit Cost	\$3,250.00
Remaining UL	18	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$3,250

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$1,092	\$1,290	\$1,505	\$1,713	\$1,935	\$2,169	\$2,418	\$2,681	\$2,960	\$3,255
Inflation Rate for Backflow Valve (domestic water) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2043	\$6,303
*Next replace year then only within timeframe of this study*	

**Comments for Backflow Valve (domestic water) - Replace**

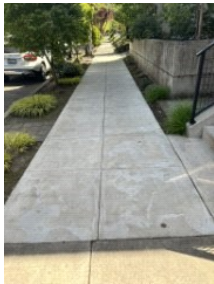
Reportedly in functional and in operating condition. As routine maintenance, inspect regularly, test system, repair as needed from operating budget. We recommend funding for this component at the time frame indicated.

Concrete Sidewalks (public) - 15% Replace

Asset ID	2160	Age Adjust +/-	
Funded?	Yes	Delay Funding?	Yes, Until 2033
Group	Site Components	Repeat Count Limit	
Category	Concrete Surfaces	Next Replacement Year	2038
Install / Allocate Year	2033	Units	319 sf
Useful Life (UL)	5	Unit Cost	\$24.00
Remaining UL	13	% Replace	15.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$1,148

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
Delayed	Delayed	Delayed	Delayed	Delayed	Delayed	Delayed	Delayed	\$327	\$677
Inflation Rate for Concrete Sidewalks (public) - 15% Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

Photo Inventory



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2038	\$1,875
2043	\$2,227
2048	\$2,645
2053	\$3,142
*Next replace year then only within timeframe of this study*	

Comments for Concrete Sidewalks (public) - 15% Replace

Installed in 2018. Replacement contingency for the concrete public sidewalks. Amount and cycle to be reviewed annually. We recommend repairing trip hazards immediately to limit liability. Note that there is some spalling at the public sidewalks at this time. The City has determined that the public sidewalks are the responsibility of the adjacent lot owner. Link: <https://www.acmecitysidewalks.com>

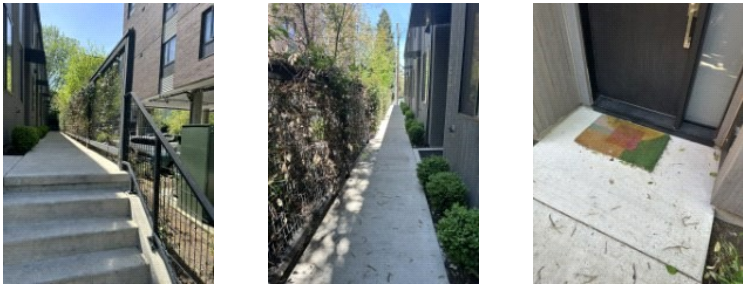
Funding for this component has been delayed until it reaches 15 years of age (with full allocation by 20 years of age) this is a timeframe when we typically see significant cost associated with repair/replacement. It is assumed that all costs related to this component before 15 years of age will be paid for from the operational account. Delaying funding has been done so it is not being double funded (operational and reserve) in the overall budget.

**Concrete Surfaces (private) - 15% Replace**

Asset ID	2200	Age Adjust +/-	
Funded?	Yes	Delay Funding?	Yes, Until 2033
Group	Site Components	Repeat Count Limit	
Category	Concrete Surfaces	Next Replacement Year	2038
Install / Allocate Year	2033	Units	595 sf
Useful Life (UL)	5	Unit Cost	\$24.00
Remaining UL	13	% Replace	15.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$2,142

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<b>Fully Funded Balance - 10 Year Projections (year end)</b>									
Delayed	Delayed	Delayed	Delayed	Delayed	Delayed	Delayed	Delayed	\$610	\$1,262
<b>Inflation Rate for Concrete Surfaces (private) - 15% Replace Component - 10 Year Projections</b>									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2038	\$3,498
2043	\$4,154
2048	\$4,934
2053	\$5,860
*Next replace year then only within timeframe of this study*	

**Comments for Concrete Surfaces (private) - 15% Replace**

Amount and cycle to be reviewed annually. We recommend repairing trip hazards immediately to limit liability.

Funding for this component has been delayed until it reaches 15 years of age (with full allocation by 20 years of age) this is a timeframe when we typically see significant cost associated with repair/replacement. It is assumed that all costs related to this component before 15 years of age will be paid for from the operational account. Delaying funding has been done so it is not being double funded (operational and reserve) in the overall budget.

**Fence (chain link 6') - Replace**

Asset ID	3180	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Fencing	Next Replacement Year	2068
Install / Allocate Year	2023	Units	9 lf
Useful Life (UL)	45	Unit Cost	\$178.00
Remaining UL	43	% Replace	100.0%
Cost Source	Client Supplied	Total Current Cost	\$1,602

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$112	\$157	\$206	\$256	\$309	\$366	\$426	\$489	\$557	\$629
Inflation Rate for Fence (chain link 6') - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2068	\$7,032
*Next replace year then only within timeframe of this study*	

**Comments for Fence (chain link 6') - Replace**

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.



Fence (wood 6') - Paint/Stain

Asset ID	3390	Age Adjust +/-	5
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Fencing	Next Replacement Year	2028
Install / Allocate Year	2018	Units	163 lf
Useful Life (UL)	5	Unit Cost	\$14.00
Remaining UL	3	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$2,282

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$1,438	\$2,013	\$2,642	\$547	\$1,132	\$1,757	\$2,425	\$3,138	\$649	\$1,344
Inflation Rate for Fence (wood 6') - Paint/Stain Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

Photo Inventory



Client Provided Replacement History		
Year	Cost	Source
2023	\$1,500	Client
Comments On Replacement History		
Reportedly installed in 2023 for \$1,500 per interview with the Client. We have inflated to the currently cost estimate in this reserve study.		

*Projected Replacement Years	
Year	Future Cost
2028	\$2,642
2033	\$3,138
2038	\$3,726
2043	\$4,426
*Next replace year then only within timeframe of this study*	

Comments for Fence (wood 6') - Paint/Stain

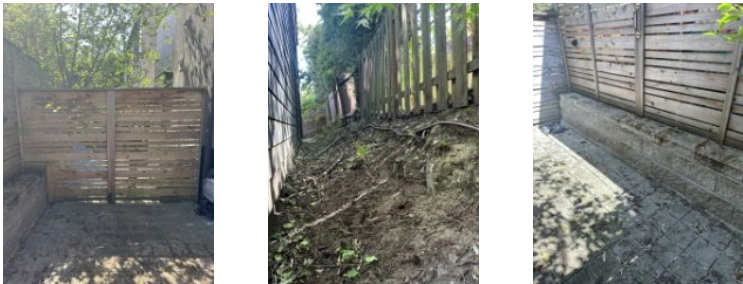
Regular sealer applications (stain/paint, etc.) on the timeline indicated are strongly recommended for appearance and protection of wood fencing. Remove any contact with ground and surrounding landscape and sprinkler patterns, repair as needed and clean prior to sealer application. Life of finish will vary depending upon surface preparation, material quality, application method and weather conditions. Cost estimate assumes both sides of the fence will be coated to adequately protect from the elements. Note that there is currently no paint coating the fences but per a conversation with the Client they would like to fund for this going forward. We have timed this in the future so it coincide with the next projected fence replacement component by giving it an age adjustment.

**Fence (wood 6') - Replace**

Asset ID	3370	Age Adjust +/-	-5
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Fencing	Next Replacement Year	2038
Install / Allocate Year	2018	Units	163 lf
Useful Life (UL)	25	Unit Cost	\$75.00
Remaining UL	13	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$12,225

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$6,675	\$7,548	\$8,491	\$9,374	\$10,309	\$11,297	\$12,342	\$13,446	\$14,613	\$15,845
Inflation Rate for Fence (wood 6') - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2038	\$19,963
*Next replace year then only within timeframe of this study*	

**Comments for Fence (wood 6') - Replace**

Wood fencing appears to be deteriorating at a rate typical of its age. As routine maintenance, inspect regularly for any damage, repair as needed. Avoid contact with ground and surrounding vegetation. Regular cycles of stain/paint will help to maintain appearance and maximize life. Plan to replace at roughly the time frame indicated.

> Located at perimeter and at privacy fences (between Units). The wood fence has been given a negative age adjustment as it has not been painted from initial construction date. It is assumed that the next cycle it will be and therefore will have a more typical useful life of 25 years for painted wood fencing. An inflation rate of 5% has been given to this component

Irrigation Backflow Valves - Replace

Asset ID	4470	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Irrigation Systems	Next Replacement Year	2038
Install / Allocate Year	2018	Units	1 ea
Useful Life (UL)	20	Unit Cost	\$950.00
Remaining UL	13	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$950

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$399	\$471	\$550	\$626	\$707	\$793	\$883	\$980	\$1,081	\$1,189
Inflation Rate for Irrigation Backflow Valves - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

Photo Inventory



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2038	\$1,551
*Next replace year then only within timeframe of this study*	

Comments for Irrigation Backflow Valves - Replace

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

**Irrigation Piping - Replace**

Asset ID	4530	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Irrigation Systems	Next Replacement Year	2058
Install / Allocate Year	2018	Units	484 sf
Useful Life (UL)	40	Unit Cost	\$2.40
Remaining UL	33	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$1,162

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$244	\$288	\$336	\$383	\$432	\$485	\$540	\$599	\$661	\$727
Inflation Rate for Irrigation Piping - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2058	\$3,615
*Next replace year then only within timeframe of this study*	

**Comments for Irrigation Piping - Replace**

No reported problems with the irrigation distribution piping at this time. 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 larger scale refurbishing of irrigation systems (e.g., piping, valves, etc.), on a cyclical basis.

> This component is for the replacement of the underground irrigation piping. Note that ongoing repairs and replacement of sprinkler heads are assumed to be paid from the Operating Account as needed.

Landscape Site Drainage - Replace

Asset ID	4620	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Landscaping	Next Replacement Year	2038
Install / Allocate Year	2018	Units	1 ls
Useful Life (UL)	20	Unit Cost	\$8,000.00
Remaining UL	13	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$8,000

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$3,360	\$3,969	\$4,631	\$5,272	\$5,952	\$6,674	\$7,439	\$8,249	\$9,107	\$10,015
Inflation Rate for Landscape Site Drainage - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

Photo Inventory



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2038	\$13,064
*Next replace year then only within timeframe of this study*	

Comments for Landscape Site Drainage - Replace

Assumed to have been properly designed with adequate provisions for the site drainage needs. This component is for a refurbishment of the current drainage system which will tend to clog and have root intrusion issues with time; these drainage systems typically require periodic refurbishment to adequately operate as designed. If after invasive testing is completed a larger scale replacement project is determined more appropriate then the costs can be included in future reserve studies. Cost estimate based on past experiences with similar sized communities. No schematic of the drainage systems on site have been provided but we have used prior records of similar sized communities in similar geographical areas for an approximate count/cost. Note that drainage locations often get forgotten and/or covered with landscaping over time and their failure is often a reminder of where they are and

Continued on Next Page ...

Comments for Landscape Site Drainage - Replace ... Continued

how many locations are present on site.

**Landscaping - Refurbish**

Asset ID	4640	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Landscaping	Next Replacement Year	2038
Install / Allocate Year	2018	Units	916 sf
Useful Life (UL)	20	Unit Cost	\$4.07
Remaining UL	13	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$3,728

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$1,566	\$1,850	\$2,158	\$2,457	\$2,774	\$3,110	\$3,467	\$3,844	\$4,244	\$4,667
Inflation Rate for Landscaping - Refurbish Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2038	\$6,088
*Next replace year then only within timeframe of this study*	

**Comments for Landscaping - Refurbish**

Although ongoing maintenance is funded from the Operating Account, this component may be utilized for setting aside funds for larger expenses that do not occur on an annual basis, such as: weed barrier replacement, large scale plantings, common area drainage projects, resodding lawn areas, landscape improvement projects, etc. Note that some of the landscaping is irrigated and some areas are not. Irrigation piping has been included as a separate component in this reserve study.

**Mailbox Cluster - Replace**

Asset ID	4940	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Mailboxes	Next Replacement Year	2043
Install / Allocate Year	2018	Units	1 ea
Useful Life (UL)	25	Unit Cost	\$1,500.00
Remaining UL	18	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$1,500

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$504	\$595	\$695	\$791	\$893	\$1,001	\$1,116	\$1,237	\$1,366	\$1,502
Inflation Rate for Mailbox Cluster - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2043	\$2,909
*Next replace year then only within timeframe of this study*	

**Comments for Mailbox Cluster - Replace**

Appears to be deteriorating at a rate typical of its 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 operating budget. Best to plan for total replacement at roughly the time frame indicated due to constant usage and wear over time.



**Pavers (sand set) - Replace**

Asset ID	5120	Age Adjust +/-	-5
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Landscaping	Next Replacement Year	2033
Install / Allocate Year	2018	Units	1,010 sf
Useful Life (UL)	20	Unit Cost	\$23.00
Remaining UL	8	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$23,230

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$15,854	\$17,928	\$20,169	\$22,266	\$24,486	\$26,834	\$29,316	\$31,939	\$1,653	\$3,421
Inflation Rate for Pavers (sand set) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2033	\$31,939
2053	\$63,552
*Next replace year then only within timeframe of this study*	

**Comments for Pavers (sand set) - Replace**

We recommend budgeting for replacement at the timeframe indicated as these paver walkway systems will typically become uneven with time due to settling, root intrusion, drainage issues and use. Ongoing trip hazard repair and minor resetting of paver projects done annually are considered operational expenses.

> A negative age adjustment has been given as it appears these sand set pavers are deteriorating faster than would be typical of their age (uneven and spaces between pavers).

**Planter Boxes - Waterproofing**

Asset ID	5220	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Landscaping	Next Replacement Year	2038
Install / Allocate Year	2018	Units	482 sf
Useful Life (UL)	20	Unit Cost	\$10.50
Remaining UL	13	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$5,061

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$2,126	\$2,511	\$2,929	\$3,335	\$3,766	\$4,222	\$4,706	\$5,219	\$5,762	\$6,336
Inflation Rate for Planter Boxes - Waterproofing Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2038	\$8,264
*Next replace year then only within timeframe of this study*	

**Comments for Planter Boxes - Waterproofing**

The waterproof membranes/coatings in the planter boxes are assumed to be in place in all necessary areas and functioning as designed. We recommend funding for regular cycles of replacement to ensure the waterproof integrity of these system are intact and functioning as designed. These waterproof membranes/coatings will become brittle and will deteriorate with time and require replacement.

**Railings (metal) - Paint**

Asset ID	6280	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	4
Category	Railings	Next Replacement Year	2028
Install / Allocate Year	2018	Units	120 lf
Useful Life (UL)	10	Unit Cost	\$18.00
Remaining UL	3	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$2,160

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$1,814	\$2,143	\$2,500	\$259	\$536	\$832	\$1,148	\$1,485	\$1,844	\$2,227
Inflation Rate for Railings (metal) - Paint Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2028	\$2,500
2038	\$3,527
2048	\$4,975
*Next replace year then only within timeframe of this study*	

**Comments for Railings (metal) - Paint**

These metal rails should be inspected and monitored rails for safety, touch up paint annually & repair as needed from operating budget.

> Repeat limit set to 4 count (i.e., this component repeats 4 times before replacement of this component is projected).

**Railings (metal) - Replace**

Asset ID	6290	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Railings	Next Replacement Year	2068
Install / Allocate Year	2018	Units	120 lf
Useful Life (UL)	50	Unit Cost	\$188.00
Remaining UL	43	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$22,560

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$3,790	\$4,477	\$5,223	\$5,947	\$6,714	\$7,528	\$8,391	\$9,305	\$10,273	\$11,297
Inflation Rate for Railings (metal) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2068	\$99,032
*Next replace year then only within timeframe of this study*	

**Comments for Railings (metal) - Replace**

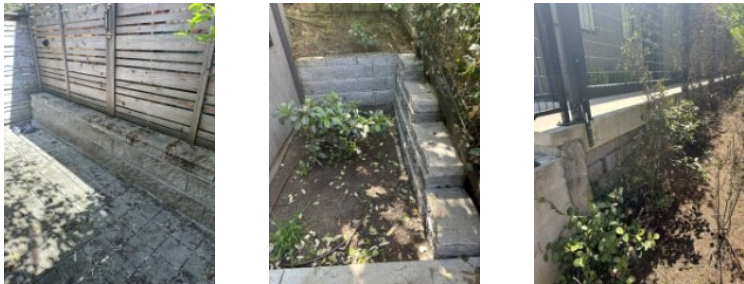
Appear to be deteriorating at a rate typical of its age. As part of ongoing maintenance program, inspect regularly for any damage/deterioration and repair promptly as needed from operating budget. Clean regularly for appearance, maximum design life and to ensure adequate footing.

**Retaining Walls (masonry) - Replace**

Asset ID	6870	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Retaining Walls	Next Replacement Year	2058
Install / Allocate Year	2018	Units	289 sf
Useful Life (UL)	40	Unit Cost	\$55.00
Remaining UL	33	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$15,895

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$3,338	\$3,943	\$4,600	\$5,237	\$5,913	\$6,630	\$7,390	\$8,195	\$9,048	\$9,949
Inflation Rate for Retaining Walls (masonry) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**



Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2058	\$49,464
*Next replace year then only within timeframe of this study*	

**Comments for Retaining Walls (masonry) - Replace**

Masonry retaining walls on site appear to be in generally fair and stable condition; no significant instability noted. We assume that retaining walls were designed and installed properly with adequate base and surrounding drainage. Monitor closely and if areas of instability emerge, consult with civil or geotechnical engineer for repair scope.

**Sewer Lateral Lines (side sewer) - Replace**

Asset ID	5440	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Plumbing	Next Replacement Year	2078
Install / Allocate Year	2018	Units	50 lf
Useful Life (UL)	60	Unit Cost	\$125.00
Remaining UL	53	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$6,250

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$875	\$1,034	\$1,206	\$1,373	\$1,550	\$1,738	\$1,937	\$2,148	\$2,372	\$2,608
Inflation Rate for Sewer Lateral Lines (side sewer) - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**

Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2078	\$38,701
*Next replace year then only within timeframe of this study*	

**Comments for Sewer Lateral Lines (side sewer) - Replace**

Sewer lateral lines (piping connecting buildings to the main line also known as side sewer) on site are reportedly functioning as designed. We recommend budgeting for sewer lateral line replacement at the timeframe indicated due to the likelihood that these lines will require replacement at approximately the timeframe indicated per our experiences with similar style pipes. A condition evaluation of these systems is beyond the scope of a Reserve Study. We recommend that a qualified professional be consulted to evaluate these systems, after 30 years of age, to determine the condition and repair needs. Once a widespread replacement plan is implemented the reserve study will need to be adjusted to reflect scheduled repairs. No as-builts have been provided; we have made an assumption regarding the linear feet based on the location of the nearby road.

**Water Lateral Lines - Replace**

Asset ID	5490	Age Adjust +/-	
Funded?	Yes	Delay Funding?	No
Group	Site Components	Repeat Count Limit	
Category	Plumbing	Next Replacement Year	2078
Install / Allocate Year	2018	Units	50 lf
Useful Life (UL)	60	Unit Cost	\$125.00
Remaining UL	53	% Replace	100.0%
Cost Source	Reserve Analyst Research	Total Current Cost	\$6,250

2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fully Funded Balance - 10 Year Projections (year end)									
\$875	\$1,034	\$1,206	\$1,373	\$1,550	\$1,738	\$1,937	\$2,148	\$2,372	\$2,608
Inflation Rate for Water Lateral Lines - Replace Component - 10 Year Projections									
5.00%	5.00%	5.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

**Photo Inventory**

Client Provided Replacement History		
Year	Cost	Source
Comments On Replacement History		

*Projected Replacement Years	
Year	Future Cost
2078	\$38,701
*Next replace year then only within timeframe of this study*	

**Comments for Water Lateral Lines - Replace**

Water lateral lines (piping between main lines and the buildings) on site are reportedly functioning as designed. We recommend budgeting for water lateral line replacement at the timeframe indicated due to the age of the piping and the likelihood that these lines will require replacement at approximately the timeframe indicated per our experiences with similar style pipes. A condition evaluation of these systems is beyond the scope of a Reserve Study. We recommend that a qualified professional be consulted to evaluate these systems, after 30 years of age to determine the condition and repair needs. Once a widespread replacement plan is implemented the reserve study will need to be adjusted to reflect scheduled repairs. No as-builts have been provided; we have made an assumption regarding the linear feet based on the location of the nearby road.

## 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.  
 > 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)

#### 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 statute.
- > 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 Reserve Study tasks are performed:

- > Component Inventory
- > Life and Cost Estimates
- > Remaining Useful Life 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)
- > Life and Valuation Estimates
- > Remaining Useful Life Estimate
- > 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:

- > Component Inventory (from prior study)
- > Life and Cost Estimates
- > Remaining Useful Life Estimate
- > 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 sub-component.

## 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 sub-component. 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 sub-component)

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:

- > an association responsibility
- > with limited useful life expectancy
- > predictable remaining useful life expectancy
- > above a minimum threshold cost (Client defined)
- > 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 sub-component to its original functional condition.

## 32. Unit of Measure

A system of units used in measuring a reserve component or sub-component (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 expectancy 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 expectancy. 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. State Specific Disclosures

### Washington State

RCW 64.34.382 & WA State RCW 64.38.070 & 64.90.550

This reserve study meets minimum standards as required per WA State RCW requirements outlined in the Washington Condominium Act, the Homeowners’ Association Act, and the Washington Uniform Common Interest Ownership 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.

### Washington State

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)

-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 (FFB) =

*Basic Fully Funded*

> Fully Funded = Age/Useful Life \* Cost

Note that "Age" is adjusted for each year of the study (e.g. one year later also equates to an Age which is one year greater). We do not use the age from the first year of the study for future FFB calculations as this would not appropriately address the deterioration of the component over time (i.e. when providing future projections one can make a valid assumption that a component will deteriorate by one year if providing projections for one year later).

Cost (component project cost) is inflated for each year based on an annual inflation rate (compounding) given in this reserve study (e.g., a paint project "cost" may be \$1,000 in Year 1 of the study but will have a "cost" of \$1,030 in Year 2 of the study, and \$1,060.90 in Year 3 of the study, when utilizing an annual 3% inflation rate). Note that we do not use the "cost" (current project cost) from the first year of the study for future year's FFB calculations as this approach does not consider the impact of inflation on the project cost and will usually result in a significantly underfunded reserve account over time. This is also known as the Inflation Adjusted Cost Method

\*\*Unless specifically noted otherwise we have utilized the above FFB formula and methodology in this reserve study.

### Community Association Institute FFB Formula

The Community Association Institute published the FFB formula to account for inflation and interest earned on deposit ("present value" is based on the current cost only - with no inflation of the project cost) the writers of 'RESERVE FUNDS: How & Why community Associations Invest Assets' published:

Mathematical formula information can be found at the following link: [www.reservedataanalyst.com/math](http://www.reservedataanalyst.com/math)