# RESERVE ANALYSIS REPORT

**Cooper Commons: Parcel 10** 

Chandler, Arizona Version 004 May 23, 2019





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This preface is intended to provide an introduction to the enclosed reserve analysis as well as detailed information regarding the reserve analysis report format, reserve fund goals/objectives and calculation methods. The following sections are included in this preface:

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#### ♦ ♦ ♦ ♦ INTRODUCTION TO RESERVE BUDGETING ♦ ♦ ♦ ♦

The Board of Directors of an association has a fiduciary duty to maintain the community in a good state of repair. Individual unit property values are significantly impacted by the level of maintenance and upkeep provided by the association as well as the amount of the regular assessment charged to each owner.

A prudent plan must be implemented to address the issues of long-range maintenance, repair and replacement of the common areas. Additionally, the plan should recognize that the value of each unit is affected by the amount of the regular assessment charged to each unit.

There is a fine line between "not enough," "just right" and "too much." Each member of an association should contribute to the reserve fund for their proportionate amount of "depreciation" (or "use") of the reserve components. Through time, if each owner contributes his "fair share" into the reserve fund for the depreciation of the reserve components, then the possibility of large increases in regular assessments or special assessments will be minimized.

An accurate reserve analysis and a "healthy" reserve fund are essential to protect and maintain the association's common areas and the property values of the individual unit owners. A comprehensive reserve analysis is one of the most significant elements of any association's long-range plan and provides the critical link between sound business judgment and good fiscal planning. The reserve analysis provides a "financial blueprint" for the future of an association.

#### ♦ ♦ ♦ ♦ UNDERSTANDING THE RESERVE ANALYSIS ♦ ♦ ♦ ♦

In order for the reserve analysis to be useful, it must be understandable by a variety of individuals. Board members (from seasoned, experienced Board members to new Board members), property managers, accountants, attorneys and even homeowners may ultimately review the reserve analysis. The reserve analysis must be detailed enough to provide a comprehensive analysis, yet simple enough to enable less experienced individuals to understand the results.

There are four key bits of information that a comprehensive reserve analysis should provide: Budget, Percent Funded, Projections and Inventory. This information is described as follows:

#### **Budget**

Amount recommended to be transferred into the reserve account for the fiscal year for which the reserve analysis was prepared. In some cases, the reserve analysis may present two or more funding plans based on different goals/objectives. The Board should have a clear understanding of the differences among these funding goals/objectives prior to implementing one of them in the annual budget.

#### **Percent Funded**

Measure of the reserve fund "health" (expressed as a percentage) as of the beginning of the fiscal year for which the

reserve analysis was prepared. This figure is the ratio of the actual reserve fund on hand to the fully funded balance. A reserve fund that is "100% funded" means the association has accumulated the proportionately correct amount of money, to date, for the reserve components it maintains.

#### **Projections**

Indicate the "level of service" the association will provide the membership as well as a "road map" for the fiscal future of the association. The projections define the timetables for repairs and replacements, such as when the buildings will be painted or when the asphalt will be seal coated. The projections also show the financial plan for the association – when an underfunded association will "catch up" or how a properly funded association will remain fiscally "healthy."

#### Inventory

Complete listing of the reserve components. Key bits of information are available for each reserve component, including placed-in-service date, useful life, remaining life, replacement year, quantity, current cost of replacement, future cost of replacement and analyst's comments.

#### ♦ ♦ ♦ ♦ RESERVE FUNDING GOALS / OBJECTIVES ♦ ♦ ♦ ♦

There are four reserve funding goals/objectives which may be used to develop a reserve funding plan that corresponds with the risk tolerance of the association: Full Funding, Baseline Funding, Threshold Funding and Statutory Funding. These goals/objectives are described as follows:

#### Full Funding

Describes the goal/objective to have reserves on hand equivalent to the value of the deterioration of each reserve component. The objective of this funding goal is to achieve and/or maintain a 100% percent funded reserve fund. The component calculation method or cash flow calculation method is typically used to develop a full funding plan.

#### **Baseline Funding**

Describes the goal/objective to have sufficient reserves on hand to never completely run out of money. The objective of this funding goal is to simply pay for all reserve expenses as they come due without regard to the association's percent funded. The cash flow calculation method is typically used to develop a baseline funding plan.

#### Threshold Funding

Describes the goal/objective other than the 100% level (full funding) or just staying cash-positive (baseline funding). This threshold goal/objective may be a specific percent funded target or a cash balance target. Threshold funding is often a value chosen between full funding and baseline funding. The cash flow calculation method is typically used to develop a threshold funding plan.

#### **Statutory Funding**

Describes the pursuit of an objective as described or required by local laws or codes. The component calculation method or cash flow calculation method is typically used to develop a statutory funding plan.

#### ♦ ♦ ♦ ♦ RESERVE FUNDING CALCULATION METHODS ♦ ♦ ♦ ♦

There are two funding methods which can be used to develop a reserve funding plan based on a reserve funding goal/ objective: Component Calculation Method and Cash Flow Calculation Method. These calculation methods are described as follows:

#### **Component Calculation Method**

This calculation method develops a funding plan for each individual reserve component. The sum of the funding plan for each component equals the total funding plan for the association. This method is often referred to as the "straight line"

method and is widely believed to be the most conservative reserve funding method. This method structures a funding plan that enables the association to pay all reserve expenditures as they come due, enables the association to achieve the ideal level of reserves in time, and then enables the association to maintain the ideal level of reserves through time. The following is a detailed description of the component calculation method:

Step 1: Calculation of fully funded balance for each component

The fully funded balance is calculated for each component based on its age, useful life and current cost. The actual formula is as follows:

Fully Funded Balance = 
$$\frac{Age}{Useful Life}$$
 X Current Cost

#### Step 2: Distribution of current reserve funds

The association's current reserve funds are assigned to (or distributed amongst) the reserve components based on each component's remaining life and fully funded balance as follows:

Pass 1: Components are organized in remaining life order, from least to greatest, and the current reserve funds are assigned to each component up to its fully funded balance, until reserves are exhausted.

Pass 2: If all components are assigned their fully funded balance and additional funds exist, they are assigned in a "second pass." Again, the components are organized in remaining life order, from least to greatest, and the remaining current reserve funds are assigned to each component up to its current cost, until reserves are exhausted.

Pass 3: If all components are assigned their current cost and additional funds exist, they are assigned in a "third pass." Components with a remaining life of zero years are assigned double their current cost.

Distributing, or assigning, the current reserve funds in this manner is the most efficient use of the funds on hand – it defers the make-up period of any underfunded reserves over the lives of the components with the largest remaining lives.

Step 3: Developing a funding plan

After step 2, all components have a "starting" balance. A calculation is made to determine what funding would be required to get from the starting balance to the future cost over the number of years remaining until replacement. The funding plan incorporates the annual contribution increase parameter to develop a "stair stepped" contribution.

For example, if an association needs to accumulate \$100,000 in ten years, \$10,000 could be contributed each year. Alternatively, the association could contribute \$8,723 in the first year and increase the contribution by 3% each year thereafter until the tenth year.

In most cases, this rate should match the inflation parameter. Matching the annual contribution increase parameter to the inflation parameter indicates, in theory, that member contributions should increase at the same rate as the cost of living (inflation parameter). Due to the "time value of money," this creates the most equitable distribution of member contributions through time.

Using an annual contribution increase parameter that is greater than the inflation parameter will reduce the burden to the current membership at the expense of the future membership. Using an annual contribution increase parameter that is less than the inflation parameter will increase the burden to the current membership to the benefit of the future membership. The following chart shows a comparison:

	0% Increase	3% Increase	10% Increase
Year 1	\$10,000.00	\$8,723.05	\$6,274.54
Year 2	\$10,000.00	\$8,984.74	\$6,901.99
Year 3	\$10,000.00	\$9,254.28	\$7,592.19
Year 4	\$10,000.00	\$9,531.91	\$8,351.41
Year 5	\$10,000.00	\$9,817.87	\$9,186.55
Year 6	\$10,000.00	\$10,112.41	\$10,105.21
Year 7	\$10,000.00	\$10,415.78	\$11,115.73
Year 8	\$10,000.00	\$10,728.25	\$12,227.30
Year 9	\$10,000.00	\$11,050.10	\$13,450.03
Year 10	\$10,000.00	\$11,381.60	\$14,795.04
TOTAL	\$100,000.00	\$100,000.00	\$100,000.00

This parameter is used to develop a funding plan only; it does not necessarily mean that the reserve contributions must be raised each year. There are far more significant factors that will contribute to a total reserve contribution increase or decrease from year to year than this parameter.

One of the major benefits of using this calculation method is that for any single component (or group of components), the accumulated balance and reserve funding can be precisely calculated. For example, using this calculation method, the reserve analysis can indicate the exact amount of current reserve funds "in the bank" for the roofs and the amount of money being funded towards the roofs each month. This information is displayed on the Management / Accounting Summary and Charts as well as elsewhere within the report.

#### **Cash Flow Calculation Method**

This calculation method develops a funding plan based on current reserve funds and projected expenditures during a specific timeframe (typically 30 years). This funding method structures a funding plan that enables the association to pay for all reserve expenditures as they come due, but is not necessarily concerned with the ideal level of reserves through time.

This calculation method tests reserve contributions against reserve expenditures through time to determine the minimum contribution necessary (baseline funding) or some other defined goal/objective (full funding, threshold funding or statutory funding). Unlike the component calculation method, this calculation method cannot precisely calculate the reserve funding for any single component (or group of components). In order to work-around this issue to provide this bookkeeping information, a formula has been applied to component method results to calculate a reasonable breakdown. This information is displayed on the Management / Accounting Summary and Charts as well as elsewhere within the report.

The **Directed Cash Flow Calculation Method** is our primary calculation method. It allows for several funding strategies to be manually tested until the optimal funding strategy accomplishing three goals is created:

Goal #1: Ensures that all scheduled reserve expenditures are covered by keeping the reserve cash balance above zero during the projected period (typically 30 years)

Goal #2: Uniformly distributes the costs of replacements over time to benefit both current & future members of the association by using consistent, incremental contribution increases

Goal #3: Provides for the lowest reserve funding recommendation as possible over time with the goal of approaching, reaching and/or maintaining a 100% fully funded reserve balance

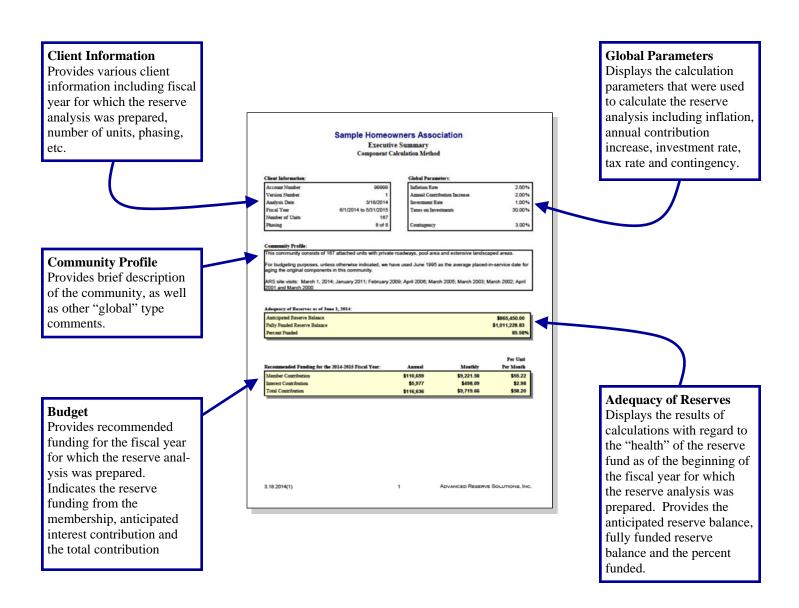
These very important aspects of the **Directed Cash Flow Calculation Method** will greatly aid the board of directors during the annual budgeting process.

#### ♦ ♦ ♦ ♦ READING THE RESERVE ANALYSIS ♦ ♦ ♦ ♦

In some cases, the reserve analysis may be a lengthy document of one hundred pages or more. A complete and thorough review of the reserve analysis is always a good idea. However, if time is limited, it is suggested that a thorough review of the summary pages be made. If a "red flag" is raised in this review, the reader should then check the detail information, of the component in question, for all relevant information. In this section, a description of most of the summary or report sections is provided along with comments regarding what to look for and how to use each section.

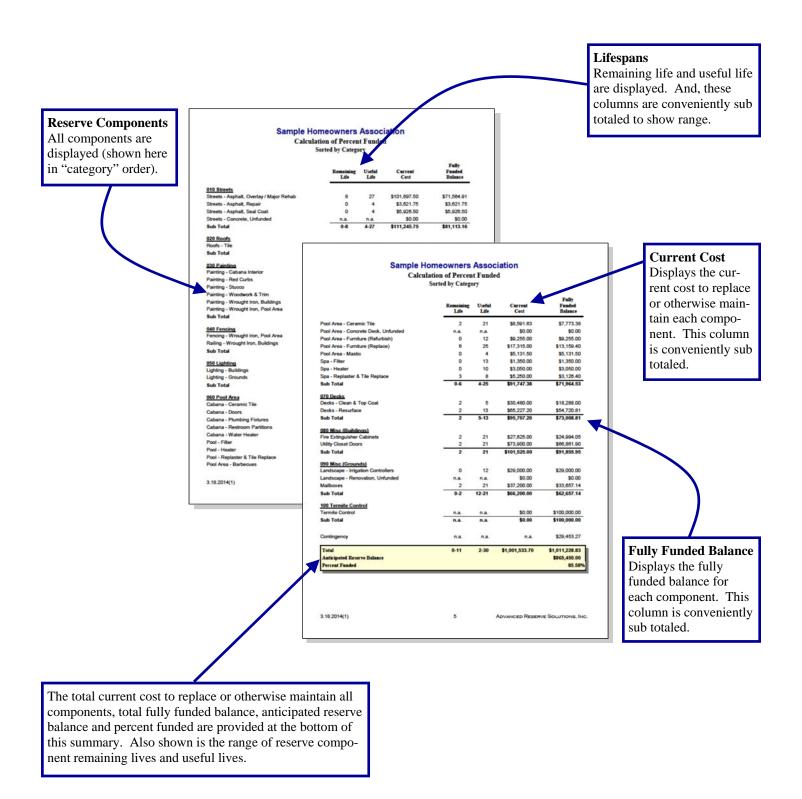
#### **Executive Summary**

Provides general information about the client, global parameters used in the calculation of the reserve analysis as well as the core results of the reserve analysis.



#### **Calculation of Percent Funded**

Summary displays all reserve components, shown here in "category" order. Provides the remaining life, useful life, current cost and the fully funded balance at the beginning of the fiscal year for which the reserve analysis was prepared.



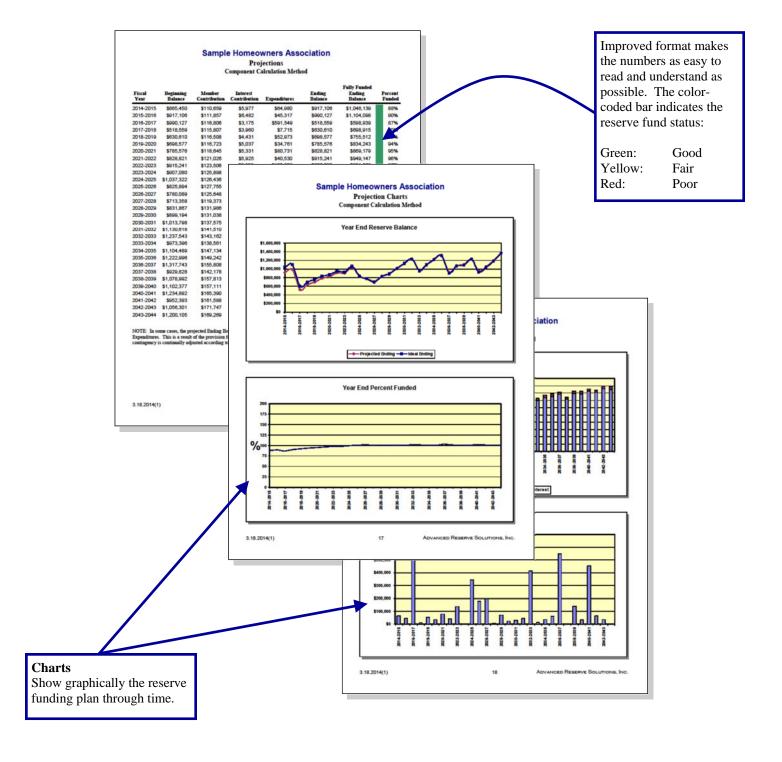
#### **Management / Accounting Summary and Charts**

Summary displays all reserve components, shown here in "category" order. Provides the assigned reserve funds at the beginning of the fiscal year for which the reserve analysis was prepared along with the monthly member contribution, interest contribution and total contribution for each component and category. Pie charts show graphically how the total reserve fund is distributed amongst the reserve component categories and how each category is funded on a monthly basis.

#### **Balance at FYB** Sample Homeowners Association Shows the amount of Management / Accounting Summary ponent Calculation Method; Sorted by Cat reserve funds assigned to each reserve component. Fiscal Yea And, this column is 010 Streets Streets - Asphalt, Overlay / M \$17 637 90 \$13.37 5963.07 conveniently sub totaled. Streets - Asphalt, Repair Streets - Asphalt, Seal Coat \$3,621.75 \$78.20 \$0.25 \$78.45 \$5,926.50 \$127.96 \$0.41 \$128.37 Sub Total \$27,186,15 \$1,155.84 \$14.04 \$1,169.88 Sub Total Sample Homeowners Association 030 Painting Painting - Cat Management / Accounting Summary Component Calculation Method; Sorted by Ca Painting - Red Curbs Painting - Woodwork & Trim Fiscal Yea Beginnin Painting - Wrought Iron, Buildings Sub Total Pool - Replaster & Tile Repla \$7,070.58 \$146.76 \$4.61 \$151.37 Pool Area - Barbecues Pool Area - Ceramic Tile \$29.98 unht Iron, Pool Are Railing - Wrought Iron, Buildings Pool Area - Concrete Deck, Unfu \$0.00 \$0.00 \$0.00 \$0.00 Sub Total Pool Area - Furniture (Refur \$9,255.00 \$70.05 \$0.23 \$70.27 Pool Area - Furniture (Repla \$7.94 Pool Area - Mastic \$5,131.50 \$110.79 \$0.36 \$111,15 Spa - Filter Spa - Heate \$12.11 \$0.04 \$12.15 \$27.44 Lighting - Grou iation Sub Total \$3,126.40 Spa - Replaster & Tile Repla \$64,12 \$2.04 \$66,15 060 Pool Area 070 Decks Decks - Cle \$18,288.00 \$539.52 \$12.44 \$551.96 Cabana - Plumbing Fixtures \$73,008.81 \$1,092.54 \$24,994.05 **Monthly Funding** \$412.47 \$40.32 3.18.2014(1) Sub Total \$91.855.95 Displays the monthly funding for each \$29,000.00 \$219.48 \$0.71 \$0.00 \$0.00 \$0.00 \$0.00 component from the \$207.63 Sub Total \$62,657.14 \$406.82 \$21.00 \$427.82 members and interest. 100 Termite Control Total monthly funding is Sub Total \$0.00 \$58.52 \$58.52 also indicated. And, \$25,207.28 \$268.59 \$15.61 \$284.20 these columns are \$9,221.58 \$9,719.66 conveniently sub totaled. 3.18.2014(1) Pie Charts Show graphically how the reserve fund is 3.18.2014(1) distributed amongst the reserve components and how the components are funded.

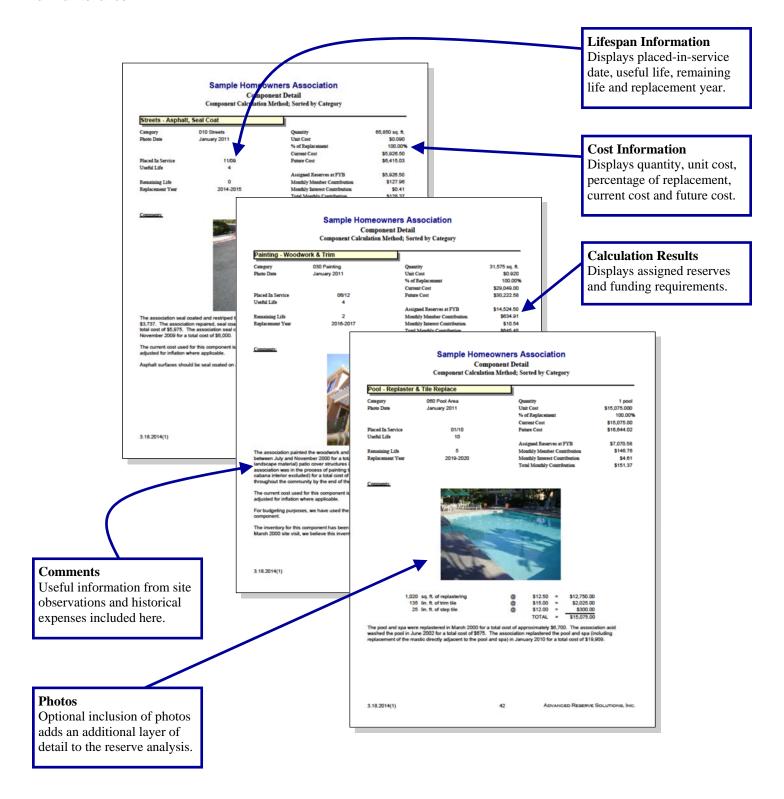
#### **Projections and Charts**

Summary displays projections of beginning reserve balance, member contribution, interest contribution, expenditures and ending reserve balance for each year of the projection period (shown here for 30 years). The two columns on the right-hand side provide the fully funded ending balance and the percent funded for each year. Charts show the same information in an easy-to-understand graphic format.



#### **Component Detail**

Summary provides detailed information about each reserve component. These pages display all information about each reserve component as well as comments from site observations and historical information regarding replacement or other maintenance.



#### ♦ ♦ ♦ ♦ GLOSSARY OF KEY TERMS ♦ ♦ ♦ ♦

#### **Annual Contribution Increase Parameter**

The rate used in the calculation of the funding plan. This rate is used on an annual compounding basis. This rate represents, in theory, the rate the association expects to increase contributions each year.

In most cases, this rate should match the inflation parameter. Matching the annual contribution increase parameter to the inflation parameter indicates, in theory, that member contributions should increase at the same rate as the cost of living (inflation parameter). Due to the "time value of money," this creates the most equitable distribution of member contributions through time.

This parameter is used to develop a funding plan only; it does not necessarily mean that the reserve contributions must be raised each year. There are far more significant factors that will contribute to a total reserve contribution increase or decrease from year to year than this parameter. See the description of "reserve funding calculation methods" in this preface for more detail on this parameter.

#### **Anticipated Reserve Balance (or Reserve Funds)**

The amount of money, as of a certain point in time, held by the association to be used for the repair or replacement of reserve components. This figure is "anticipated" because it is calculated based on the most current financial information available as of the analysis date, which is almost always prior to the fiscal year beginning date for which the reserve analysis is prepared.

#### **Assigned Funds (and "Fixed" Assigned Funds)**

The amount of money, as of the fiscal year beginning date for which the reserve analysis is prepared, that a reserve component has been assigned.

The assigned funds are considered "fixed" when the normal calculation process is bypassed and a specific amount of money is assigned to a reserve component. For example, if the normal calculation process assigns \$10,000 to the roofs, but the association would like to show \$20,000 assigned to roofs, "fixed" funds of \$20,000 can be assigned.

#### **Cash Flow Calculation Method**

Reserve funding calculation method developed based on total annual expenditures. A more detailed description of the actual calculation process is included in the "reserve funding calculation methods" section of the preface.

#### **Component Calculation Method**

Reserve funding calculation method developed based on each individual component. A more detailed description of the actual calculation process is included in the "reserve funding calculation methods" section of the preface.

#### **Contingency Parameter**

The rate used as a built-in buffer in the calculation of the funding plan. This rate will assign a percentage of the reserve funds, as of the fiscal year beginning, as contingency funds and will also determine the level of funding toward the contingency each month.

#### **Current Replacement Cost**

The amount of money, as of the fiscal year beginning date for which the reserve analysis is prepared, that a reserve component is expected to cost to replace.

#### Fiscal Year

Indicates the budget year for the association for which the reserve analysis was prepared. The fiscal year beginning (FYB) is the first day of the budget year; the fiscal year end (FYE) is the last day of the budget year.

#### Fully Funded Reserve Balance (or Ideal Reserves)

The amount of money that should theoretically have accumulated in the reserve fund as of a certain point in time. Fully funded reserves are calculated for each reserve component based on the current replacement cost, age and useful life:

Fully Funded Reserves = 
$$\frac{Age}{Useful Life}$$
 X Current Replacement Cost

The fully funded reserve balance is the sum of the fully funded reserves for each reserve component.

An association that has accumulated the fully funded reserve balance does not have all of the funds necessary to replace all of its reserve components immediately; it has the proportionately appropriate reserve funds for the reserve components it maintains, based on each component's current replacement cost, age and useful life.

#### **Future Replacement Cost**

The amount of money, as of the fiscal year during which replacement of a reserve component is scheduled, that a reserve component is expected to cost to replace. This cost is calculated using the current replacement cost compounded annually by the inflation parameter.

#### **Global Parameters**

The financial parameters used to calculate the reserve analysis. See also "inflation parameter," "annual contribution increase parameter," "investment rate parameter" and "taxes on investments parameter."

#### **Inflation Parameter**

The rate used in the calculation of future costs for reserve components. This rate is used on an annual compounding basis. This rate represents the rate the association expects the cost of goods and services relating to their reserve components to increase each year.

#### **Interest Contribution**

The amount of money contributed to the reserve fund by the interest earned on the reserve fund and member contributions.

#### **Investment Rate Parameter**

The gross rate used in the calculation of interest contribution (interest earned) from the reserve balance and member contributions. This rate (net of the taxes on investments parameter) is used on a monthly compounding basis. This parameter represents the weighted average interest rate the association expects to earn on their reserve fund investments.

#### **Membership Contribution**

The amount of money contributed to the reserve fund by the association's membership.

#### Monthly Contribution (and "Fixed" Monthly Contribution)

The amount of money, for the fiscal year which the reserve analysis is prepared, that a reserve component will be funded.

The monthly contribution is considered "fixed" when the normal calculation process is bypassed and a specific amount of money is funded to a reserve component. For example, if the normal calculation process funds \$1,000 to the roofs each month, but the association would like to show \$500 funded to roofs each month, a "fixed" contribution of \$500 can be assigned.

#### Number of Units (or other assessment basis)

Indicates the number of units for which the reserve analysis was prepared. In "phased" developments (see phasing), this number represents the number of units, and corresponding common area components, that existed as of a certain point in time.

For some associations, assessments and reserve contributions are based on a unit of measure other than the number of units. Examples include time-interval weeks for timeshare resorts or lot acreage for commercial/industrial developments.

#### **One-Time Replacement**

Used for components that will be budgeted for only once.

#### **Percent Funded**

A measure, expressed as a percentage, of the association's reserve fund "health" as of a certain point in time. This number is the ratio of the anticipated reserve fund balance to the fully funded reserve balance:

Percent Funded =

Anticipated Reserve Fund Balance

Fully Funded Reserve Balance

An association that is 100% funded does not have all of the reserve funds necessary to replace all of its reserve components immediately; it has the proportionately appropriate reserve funds for the reserve components it maintains, based on each component's current replacement cost, age and useful life.

#### **Percentage of Replacement**

The percentage of the reserve component that is expected to be replaced.

For most reserve components, this percentage should be 100%. In some cases, this percentage may be more or less than 100%. For example, fencing which is shared with a neighboring community may be set at 50%.

#### **Phasing**

Indicates the number of phases for which the reserve analysis was prepared and the total number of phases expected at build-out (i.e. Phase 4 of 7). In phased developments, the first number represents the number of phases, and corresponding common area components, that existed as of a certain point in time. The second number represents the number of phases that are expected to exist at build-out.

#### Placed-In-Service Date

The date (month and year) that the reserve component was originally put into service or last replaced.

#### Remaining Life

The length of time, in years, until a reserve component is scheduled to be replaced.

#### Remaining Life Adjustment

The length of time, in years, that a reserve component is expected to last in excess (or deficiency) of its useful life for the current cycle of replacement.

If the current cycle of replacement for a reserve component is expected to be greater than or less than the "normal" life expectancy, the reserve component's life should be adjusted using a remaining life adjustment.

For example, if wood trim is painted normally on a 4 year cycle, the useful life should be 4 years. However, when it comes time to paint the wood trim and it is determined that it can be deferred for an additional year, the useful life should remain at 4 years and a remaining life adjustment of +1 year should be used.

#### Replacement Year

The fiscal year that a reserve component is scheduled to be replaced.

#### Reserve Components

Line items included in the reserve analysis.

#### **Taxes on Investments Parameter**

The rate used to offset the investment rate parameter in the calculation of the interest contribution. This parameter represents the marginal tax rate the association expects to pay on interest earned by the reserve funds and member contributions.

#### **Total Contribution**

The sum of the membership contribution and interest contribution.

#### **Useful Life**

The length of time, in years, that a reserve component is expected to last each time it is replaced. See also "remaining life adjustment."

#### ♦ ♦ ♦ ♦ LIMITATIONS OF RESERVE ANALYSIS • ♦ ♦ ♦

This reserve analysis is intended as a tool for the association's Board of Directors to be used in evaluating the association's current physical and financial condition with regard to reserve components. The results of this reserve analysis represent the independent opinion of the preparer. There is no implied warranty or guarantee of this work product.

For the purposes of this reserve analysis, it has been assumed that all components have been installed properly, no construction defects exist and all components are operational. Additionally, it has been assumed that all components will be maintained properly in the future.

The representations set forth in this reserve analysis are based on the best information and estimates of the preparer as of the date of this analysis. These estimates are subject to change. This reserve analysis includes estimates of replacement costs and life expectancies as well as assumptions regarding future events. Some estimates are projections of future events based on information currently available and are not necessarily indicative of the actual future outcome. The longer the time period between the estimate and the estimated event, the more likely the possibility or error and/or discrepancy. For example, some assumptions inevitably will not materialize and unanticipated events and circumstances may occur subsequent to the preparation of this reserve analysis. Therefore, the actual replacement costs and remaining lives may vary from this reserve analysis and the variation may be significant. Additionally, inflation and other economic events may impact this reserve analysis, particularly over an extended period of time and those events could have a significant and negative impact on the accuracy of this reserve analysis and, further, the funds available to meet the association's obligation for repair, replacement or other maintenance of major components during their estimated useful life. Furthermore, the occurrence of vandalism, severe weather conditions, earthquakes, floods, acts of nature or other unforeseen events cannot be predicted and/or accounted for and are excluded when assessing life expectancy, repair and/or replacement costs of the components.

## **Executive Summary**

#### **Directed Cash Flow Calculation Method**

#### **Client Information:**

Account Number	2202
Version Number	004
Analysis Date	05/23/2019
Fiscal Year	1/1/2020 to 12/31/2020
Number of Units	115
Phasing	1 of 1

#### **Global Parameters:**

Inflation Rate	2.55 %
Annual Contribution Increase	2.55 %
Investment Rate	1.50 %
Taxes on Investments	0.00 %
Contingency	0.00 %

#### **Community Profile:**

Unless otherwise indicated in this report, we have used 2001 as the basis for aging the original components examined in this analysis.

Reserve Balance as of March 31, 2019: \$95,136

Remaining 2019 Reserve Contributions: \$19,350 (\$2,150/month x 9 months)

Remaining 2019 Interest to be Earned (1.50%): \$1,180

Remaining 2019 Reserve Expenditures: None Planned or Anticipated

Projected January 1, 2020 Reserve Balance: \$115,666

REPORTS: 2004. Updated 2010, 2015 & 2019.

#### Adequacy of Reserves as of January 1, 2020:

Anticipated Reserve Balance	\$115,666.00
Fully Funded Reserve Balance	\$53,520.83
Percent Funded	216.11%

Per Unit

Recommended Funding for the 2020 Fiscal Year:	Annual	Monthly	Per Month
Member Contribution	\$7,560	\$630.00	\$5.48
Interest Contribution	\$1,712	\$142.69	\$1.24
Total Contribution	\$9,272	\$772.69	\$6.72

## Distribution of Current Reserve Funds Sorted by Remaining Life

	Remaining Life	Fully Funded Balance	Assigned Reserves
Grounds: Irrigation Controllers	0	\$750.00	\$1,500.00
Grounds: Site Improvements	0	\$3,500.00	\$7,000.00
Wrought Iron: Fencing & Gate (Repair/Repaint)	0	\$1,500.00	\$3,000.00
Driveways: Concrete Pavers (Repairs)	1	\$10,284.70	\$10,826.00
Street: Asphalt Repair & Seal Coat	2	\$1,200.00	\$2,000.00
Block Walls: Repaint	3	\$7,560.00	\$10,800.00
Block Walls: Repair/Replace	6	\$10,260.00	\$13,500.00
Street: Asphalt Rehabilitation	12	\$14,066.13	\$22,950.00
Wrought Iron: Fencing & Gate (Replace)	14	\$4,400.00	\$10,000.00
Grounds: Concrete Components (Unfunded)	n.a.	\$0.00	\$0.00
Grounds: Irrigation System (Unfunded)	n.a.	\$0.00	\$0.00
Contingency	n.a.	\$0.00	\$0.00
Total Percent Funded	0-14	\$53,520.83	\$115,666.00 216.11%

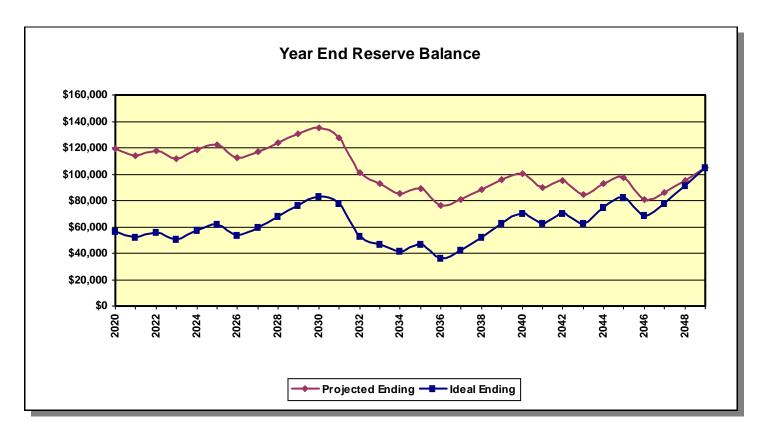
Includes excess reserves of \$34,090 /

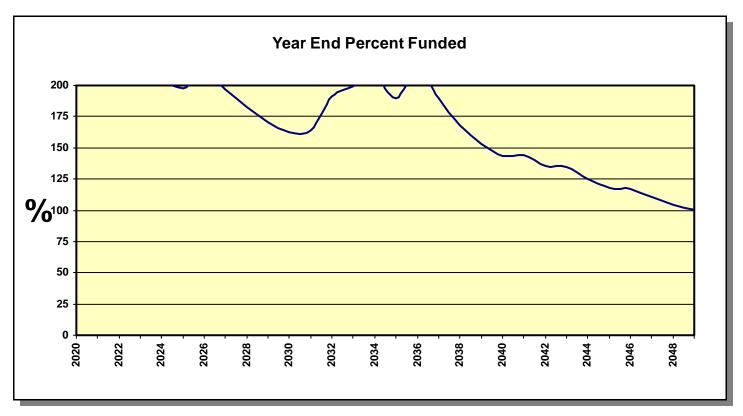
## **Projections**

### **Directed Cash Flow Calculation Method**

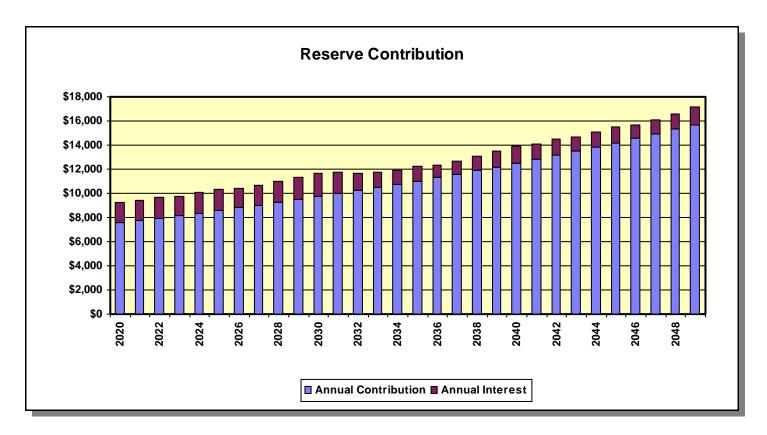
Fiscal Year	Beginning Balance	Member Contribution	Interest Contribution	Expenditures	Ending Balance	Fully Funded Ending Balance	Percent Funded
2020	\$115,666	\$7,560	\$1,712	\$5,750	\$119,188	\$56,836	210%
2021	\$119,188	\$7,753	\$1,632	\$14,691	\$113,882	\$51,835	220%
2022	\$113,882	\$7,950	\$1,688	\$5,784	\$117,736	\$56,061	210%
2023	\$117,736	\$8,153	\$1,602	\$15,422	\$112,068	\$50,737	221%
2024	\$112,068	\$8,361	\$1,692	\$3,871	\$118,250	\$57,353	206%
2025	\$118,250	\$8,574	\$1,747	\$6,521	\$122,050	\$61,657	198%
2026	\$122,050	\$8,793	\$1,605	\$19,773	\$112,676	\$53,690	210%
2027	\$112,676	\$9,017	\$1,665	\$6,560	\$116,798	\$59,344	197%
2028	\$116,798	\$9,247	\$1,763	\$4,281	\$123,527	\$67,760	182%
2029	\$123,527	\$9,483	\$1,865	\$4,390	\$130,485	\$76,567	170%
2030	\$130,485	\$9,725	\$1,926	\$7,396	\$134,739	\$82,810	163%
2031	\$134,739	\$9,973	\$1,818	\$18,898	\$127,632	\$77,721	164%
2032	\$127,632	\$10,227	\$1,417	\$38,487	\$100,790	\$52,724	191%
2033	\$100,790	\$10,488	\$1,295	\$19,838	\$92,734	\$46,533	199%
2034	\$92,734	\$10,755	\$1,185	\$19,206	\$85,469	\$41,158	208%
2035	\$85,469	\$11,030	\$1,240	\$8,389	\$89,350	\$47,075	190%
2036	\$89,350	\$11,311	\$1,043	\$25,434	\$76,270	\$36,005	212%
2037	\$76,270	\$11,599	\$1,105	\$8,439	\$80,535	\$42,435	190%
2038	\$80,535	\$11,895	\$1,215	\$5,507	\$88,138	\$52,396	168%
2039	\$88,138	\$12,198	\$1,330	\$5,647	\$96,019	\$62,838	153%
2040	\$96,019	\$12,509	\$1,393	\$9,514	\$100,407	\$69,960	144%
2041	\$100,407	\$12,828	\$1,238	\$24,309	\$90,164	\$62,481	144%
2042	\$90,164	\$13,155	\$1,308	\$9,571	\$95,057	\$70,326	135%
2043	\$95,057	\$13,491	\$1,143	\$25,519	\$84,173	\$62,425	135%
2044	\$84,173	\$13,835	\$1,270	\$6,405	\$92,872	\$74,344	125%
2045	\$92,872	\$14,188	\$1,338	\$10,791	\$97,607	\$82,500	118%
2046	\$97,607	\$14,550	\$1,081	\$32,717	\$80,520	\$68,821	117%
2047	\$80,520	\$14,921	\$1,155	\$10,855	\$85,741	\$77,666	110%
2048	\$85,741	\$15,301	\$1,294	\$7,084	\$95,251	\$91,068	105%
2049	\$95,251	\$15,691	\$1,437	\$7,264	\$105,115	\$105,103	100%

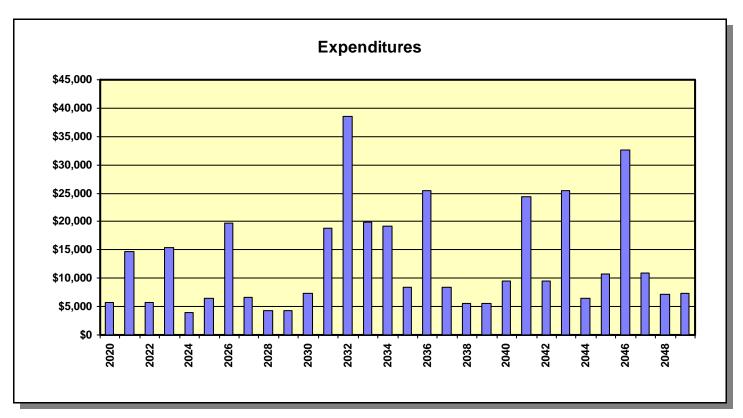
# **Projection Charts Directed Cash Flow Calculation Method**





# **Projection Charts Directed Cash Flow Calculation Method**





# **Annual Expenditure Detail**

2020 Fiscal Year	
Grounds: Irrigation Controllers	\$750.00
Grounds: Site Improvements	\$3,500.00
Wrought Iron: Fencing & Gate (Repair/Repaint)	\$1,500.00
Sub Total	\$5,750.00
2021 Fiscal Year	
Driveways: Concrete Pavers (Repairs)	\$11,102.06
Grounds: Site Improvements	\$3,589.25
Sub Total	\$14,691.31
	Ψ14,331.31
2022 Fiscal Year	
Grounds: Site Improvements	\$3,680.78
Street: Asphalt Repair & Seal Coat	\$2,103.30
Sub Total	\$5,784.08
2023 Fiscal Year	
Block Walls: Repaint	\$11,647.45
Grounds: Site Improvements	\$3,774.64
Sub Total	\$15,422.08
2024 Fiscal Year	
Grounds: Site Improvements	\$3,870.89
Sub Total	\$3,870.89
2025 Fiscal Year	
Grounds: Irrigation Controllers	\$850.63
Grounds: Site Improvements	\$3,969.60
Wrought Iron: Fencing & Gate (Repair/Repaint)	\$1,701.26
Sub Total	\$6,521.48
2026 Fiscal Year	<b>\$45.704.74</b>
Block Walls: Repair/Replace	\$15,701.74
Grounds: Site Improvements Sub Total	\$4,070.82 <b>\$19,772.56</b>
Sub rotal	\$19,772.56
2027 Fiscal Year	
Grounds: Site Improvements	\$4,174.63
Street: Asphalt Repair & Seal Coat	\$2,385.50
Sub Total	\$6,560.13

# **Annual Expenditure Detail**

2028 Fiscal Year	
Grounds: Site Improvements	\$4,281.08
Sub Total	\$4,281.08
2029 Fiscal Year	
Grounds: Site Improvements	\$4,390.25
Sub Total	\$4,390.25
2030 Fiscal Year	
Grounds: Irrigation Controllers	\$964.76
Grounds: Site Improvements	\$4,502.20
Wrought Iron: Fencing & Gate (Repair/Repaint)	\$1,929.51
Sub Total	\$7,396.47
2031 Fiscal Year	
Driveways: Concrete Pavers (Repairs)	\$14,281.06
Grounds: Site Improvements	\$4,617.01
Sub Total	\$18,898.06
2032 Fiscal Year	
Grounds: Site Improvements	\$4,734.74
Street: Asphalt Rehabilitation	\$31,046.36
Street: Asphalt Repair & Seal Coat	\$2,705.57
Sub Total	\$38,486.66
2033 Fiscal Year	
Block Walls: Repaint	\$14,982.61
Grounds: Site Improvements	\$4,855.47
Sub Total	\$19,838.08
2034 Fiscal Year	
Grounds: Site Improvements	\$4,979.29
Wrought Iron: Fencing & Gate (Replace)	\$14,226.54
Sub Total	\$19,205.83
2035 Fiscal Year	
Grounds: Irrigation Controllers	\$1,094.20
Grounds: Site Improvements	\$5,106.26
Wrought Iron: Fencing & Gate (Repair/Repaint)	\$2,188.40
Sub Total	\$8,388.86

# **Annual Expenditure Detail**

2036 Fiscal Year	
Block Walls: Repair/Replace	\$20,197.82
Grounds: Site Improvements	\$5,236.47
Sub Total	\$25,434.29
2037 Fiscal Year	
Grounds: Site Improvements	\$5,370.00
Street: Asphalt Repair & Seal Coat	\$3,068.57
Sub Total	\$8,438.57
2020 Finant Van	
2038 Fiscal Year Grounds: Site Improvements	\$5,506.94
Sub Total	\$5,506.94 \$5,506.94
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2039 Fiscal Year	
Grounds: Site Improvements	\$5,647.36
Sub Total	\$5,647.36
2040 Fiscal Year	
Grounds: Irrigation Controllers	\$1,241.01
Grounds: Site Improvements	\$5,791.37
Wrought Iron: Fencing & Gate (Repair/Repaint)	\$2,482.02
Sub Total	\$9,514.39
2041 Fiscal Year	
Driveways: Concrete Pavers (Repairs)	\$18,370.33
Grounds: Site Improvements	\$5,939.05
Sub Total	\$24,309.38
2042 Fiscal Year	\$6,000 F0
Grounds: Site Improvements Street: Asphalt Repair & Seal Coat	\$6,090.50 \$3,480.28
Sub Total	\$9,570.78
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2043 Fiscal Year	
Block Walls: Repaint	\$19,272.77
Grounds: Site Improvements	\$6,245.80
Sub Total	\$25,518.57
2044 Fiscal Year	
Grounds: Site Improvements	\$6,405.07

# **Annual Expenditure Detail**

Sub Total	\$6,405.07
2045 Fiscal Year	
Grounds: Irrigation Controllers	\$1,407.51
Grounds: Site Improvements	\$6,568.40
Wrought Iron: Fencing & Gate (Repair/Repaint)	\$2,815.03
Sub Total	\$10,790.94
2046 Fiscal Year	
Block Walls: Repair/Replace	\$25,981.31
Grounds: Site Improvements	\$6,735.90
Sub Total	\$32,717.21
2047 Fiscal Year	
Grounds: Site Improvements	\$6,907.66
Street: Asphalt Repair & Seal Coat	\$3,947.23
Sub Total	\$10,854.90
2048 Fiscal Year	
Grounds: Site Improvements	\$7,083.81
Sub Total	\$7,083.81
2049 Fiscal Year	
Grounds: Site Improvements	\$7,264.44
Sub Total	\$7,264.44

## **Component Detail**

Directed Cash Flow Calculation Method; Sorted by Category

<b>Driveways: Con</b>	crete Pavers (Repairs)		
Category	010 Driveways	Quantity	54,130 sq. ft.
		Unit Cost	\$8.000
		% of Replacement	2.50%
		Current Cost	\$10,826.00
Placed In Service	01/01	Future Cost	\$11,102.06
Useful Life	10		
Adjustment	+10	Assigned Reserves at FYB	\$10,826.00
Remaining Life	1	Monthly Member Contribution	\$14.81
Replacement Year	2021	Monthly Interest Contribution	\$21.48
		<b>Total Monthly Contribution</b>	\$36.29

#### Comments:



This component will accumulate funds for 20 years, and then on a continuous 10 year cycle, for the maintenance & repair of the concrete pavers making up the common area driveways throughout Parcel 10. The condition of the pavers should be monitored over time, and the useful life & cost estimates adjusted accordingly.

## **Component Detail**

**Directed Cash Flow Calculation Method; Sorted by Category** 

Street: Asphalt I	Rehabilitation		
Category	010 Street	Quantity	7,650 sq. ft.
		Unit Cost	\$3.000
		% of Replacement	100.00%
		Current Cost	\$22,950.00
Placed In Service	01/01	Future Cost	\$31,046.36
Useful Life	31		
		Assigned Reserves at FYB	\$22,950.00
Remaining Life	12	Monthly Member Contribution	\$31.39
Replacement Year	2032	Monthly Interest Contribution	\$45.53
		<b>Total Monthly Contribution</b>	\$76.92

#### Comments:



This component budgets to remove & replace the asphalt making up S. Sharon Court - the only asphalt road that the Association is responsible to maintain.

### **Component Detail**

Directed Cash Flow Calculation Method; Sorted by Category

Street: Asphalt F	Repair & Seal Coat		
Category	010 Street	Quantity	1 total
		Unit Cost	\$2,000.000
		% of Replacement	100.00%
		Current Cost	\$2,000.00
Placed In Service	01/17	Future Cost	\$2,103.30
Useful Life	5		
		Assigned Reserves at FYB	\$2,000.00
Remaining Life	2	Monthly Member Contribution	\$2.74
Replacement Year	2022	Monthly Interest Contribution	\$3.97
		<b>Total Monthly Contribution</b>	\$6.71

#### Comments:



This component includes a provision to repair & seal coat the asphalt making up S. Sharon Court on a continuous five year cycle.

It should be noted that the repair/seal coat and rehabilitation assets are budgeted to occur in the same budget year. It is recommended that the asphalt be seal coated within 6 months of rehabilitation. Therefore, this component appears in the same year as the rehabilitation project. If the Association chooses not to seal coat within 6 months of rehabilitation, the accumulated funds can be used for any additional expenses associated with the rehabilitation, or remain in the reserve account to be reallocated to other future projects.

## **Component Detail**

**Directed Cash Flow Calculation Method; Sorted by Category** 

Block Walls: Re	paint		
Category	040 Block Walls	Quantity	27,000 sq. ft.
		Unit Cost	\$0.400
		% of Replacement	100.00%
		Current Cost	\$10,800.00
Placed In Service	01/13	Future Cost	\$11,647.45
Useful Life	10		
		Assigned Reserves at FYB	\$10,800.00
Remaining Life	3	Monthly Member Contribution	\$14.77
Replacement Year	2023	Monthly Interest Contribution	\$21.43
		<b>Total Monthly Contribution</b>	\$36.20

#### Comments:



The block walls throughout Parcel 10 were repainted in approximately 2013. We are budgeting to repaint the block walls every 10 years.

## **Component Detail**

### Directed Cash Flow Calculation Method; Sorted by Category

Block Walls: Re	pair/Replace		
Category	040 Block Walls	Quantity	27,000 sq. ft.
		Unit Cost	\$20.000
		% of Replacement	2.50%
		Current Cost	\$13,500.00
Placed In Service	01/01	Future Cost	\$15,701.74
Useful Life	10		
Adjustment	+15	Assigned Reserves at FYB	\$13,500.00
Remaining Life	6	Monthly Member Contribution	\$18.46
Replacement Year	2026	Monthly Interest Contribution	\$26.78
		<b>Total Monthly Contribution</b>	\$45.25

#### Comments:



This component will accumulate funds for 25 years, and then on a continuous 10 year cycle, for the major repair/replacement of a percentage of the common area block walls. The accumulated funds should be used "as needed", and the percentage budgeted for repair/replacement should be adjusted over time as conditions dictate.

### **Component Detail**

Directed Cash Flow Calculation Method; Sorted by Category

#### Wrought Iron: Fencing & Gate (Repair/Repaint) Category 045 Wrought Iron Fencing 1 total Quantity Unit Cost \$1,500.000 100.00% % of Replacement \$1,500.00 Current Cost Placed In Service 01/09 **Future Cost** \$1,701.26 Useful Life 5 Assigned Reserves at FYB \$3,000.00 \$41.30 Remaining Life 0 Monthly Member Contribution 2020 \$0.28 Replacement Year Monthly Interest Contribution

**Total Monthly Contribution** 

\$41.59

#### Comments:



This component includes a provision to repair & repaint the following wrought iron components:

- security fencing installed atop the block wall backing Albertsons (along Bell Place)
- fencing & gate at the enclosed area in front of the block wall mentioned above

## **Component Detail**

**Directed Cash Flow Calculation Method; Sorted by Category** 

Wrought Iron:	Fencing & Gate (Replace)		
Category	045 Wrought Iron Fencing	Quantity	1 total
		Unit Cost	\$10,000.000
		% of Replacement	100.00%
		Current Cost	\$10,000.00
Placed In Service	01/09	Future Cost	\$14,226.54
Useful Life	25		
		Assigned Reserves at FYB	\$10,000.00
Remaining Life	14	Monthly Member Contribution	\$13.68
Replacement Year	2034	Monthly Interest Contribution	\$19.85
		Total Monthly Contribution	\$33.53

#### Comments:



This component budgets to replace the following wrought iron:

121 - LF of 3' security fencing installed atop the block wall backing Albertsons (along Bell Place)

15 - LF of 5'8" fencing & gate at the enclosed area in front of the block wall mentioned above

### **Component Detail**

Directed Cash Flow Calculation Method; Sorted by Category

Grounds: Concr	ete Components (Unfunded)		
Category	100 Grounds	Quantity	1 comment
		Unit Cost	\$0.000
		% of Replacement	0.00%
		Current Cost	\$0.00
Placed In Service	01/01	Future Cost	\$0.00
Useful Life	n.a.		
		Assigned Reserves at FYB	\$0.00
Remaining Life	n.a.	Monthly Member Contribution	\$0.00
Replacement Year	n.a.	Monthly Interest Contribution	\$0.00
		<b>Total Monthly Contribution</b>	\$0.00

#### Comments:



We are not budgeting for repair or replacement of concrete components in this analysis. It is anticipated that any repairs/replacements required will be addressed immediately due to safety concerns. There should not be a need for complete replacement at a single point in time, and good maintenance practice won't allow the need for repairs to accumulate to a point of major expense. We recommend that a line item be set up in the annual operating budget to account for potential concrete repairs/replacements on an "as needed" basis. However, should the client wish to include budgeting for concrete components as a reserve expense, we will do so at their request (cost and useful life to be provided by client).

### **Component Detail**

Directed Cash Flow Calculation Method; Sorted by Category

<b>Grounds: Irrigat</b>	ion Controllers		
Category	100 Grounds	Quantity	1 total
		Unit Cost	\$750.000
		% of Replacement	100.00%
		Current Cost	\$750.00
Placed In Service	01/10	Future Cost	\$850.63
Useful Life	5		
		Assigned Reserves at FYB	\$1,500.00
Remaining Life	0	Monthly Member Contribution	\$20.65
Replacement Year	2020	Monthly Interest Contribution	\$0.14
		<b>Total Monthly Contribution</b>	\$20.79

#### Comments:



There are three irrigation controllers servicing the Parcel 10 common areas. At the time of the May 2019 field inspection, we were unable to open any of the irrigation controller boxes to inspect the controllers. We weren't provided any information on irrigation controller replacements since 2015, but that doesn't necessarily mean that there weren't any. Going forward, using 2010 as the basis for aging, this component will accumulate funds on a five year cycle for the replacement of the irrigation controllers on an "as needed" basis.

### **Component Detail**

Directed Cash Flow Calculation Method; Sorted by Category

<b>Grounds: Irrigati</b>	on System (Unfunded)		
Category	100 Grounds	Quantity	1 comment
		Unit Cost	\$0.000
		% of Replacement	0.00%
		Current Cost	\$0.00
Placed In Service	01/01	Future Cost	\$0.00
Useful Life	n.a.		
		Assigned Reserves at FYB	\$0.00
Remaining Life	n.a.	Monthly Member Contribution	\$0.00
Replacement Year	n.a.	Monthly Interest Contribution	\$0.00
		<b>Total Monthly Contribution</b>	\$0.00

#### Comments:



Irrigation systems are one of the most difficult items to budget for without specific information provided by an expert who is familiar with the system inventory and system condition. We have been advised by irrigation system experts that most system components (piping, sprinkler heads, valves, etc) have a useful life of 20+ years. However, budgeting for the replacement of an irrigation system requires evaluation of the present condition (to identify remaining useful life) and replacement cost - both of which call for expert evaluation, but fall outside the scope of a reserve study.

Therefore, we recommend that the Association board and/or management company have the system evaluated to determine the appropriate scope of work, projected replacement cost and remaining life, all of which are necessary so that budgeting can be included in a revision or future update of this analysis.

### **Component Detail**

Directed Cash Flow Calculation Method; Sorted by Category

Grounds: Site In	nprovements		
Category	100 Grounds	Quantity	1 total
		Unit Cost	\$3,500.000
		% of Replacement	100.00%
		Current Cost	\$3,500.00
Placed In Service	01/19	Future Cost	\$3,589.25
Useful Life	1		
		Assigned Reserves at FYB	\$7,000.00
Remaining Life	0	Monthly Member Contribution	\$472.20
Replacement Year	2020	Monthly Interest Contribution	\$3.22
		<b>Total Monthly Contribution</b>	\$475.42

#### Comments:



At the time of the 2004 reserve study, the client advised us to budget \$2,500 annually for site improvements, and we have continued to budget an annual amount for site improvements in each subsequent reserve study update. However, we have yet to be provided any information pertaining to reserve expenditures for site improvements in Parcel 10 from 2004 - 2019. Given that no direction has been provided by the client regarding site improvements going forward, we have continued to budget for such as an annual reserve expense, and have used a current budgeted amount of \$3,500.

NOTE: The term "Site Improvements" hase never been defined by the client.

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Number of components included in this reserve analysis is 11.