Reserve Analysis Report

The Sample Condominium
Boston, Massachusetts
Version 1
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The Sample Condominium

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Preface

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 legal and 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:

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

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 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.

The component calculation method is typically used for well-funded associations (greater that 65% funded) with a goal/ objective of full funding.

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 cash flow calculation method is typically used for under-funded associations (less than 65% funded) with a goal/ objective of full funding, threshold funding, baseline funding or statutory funding.

Preface

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

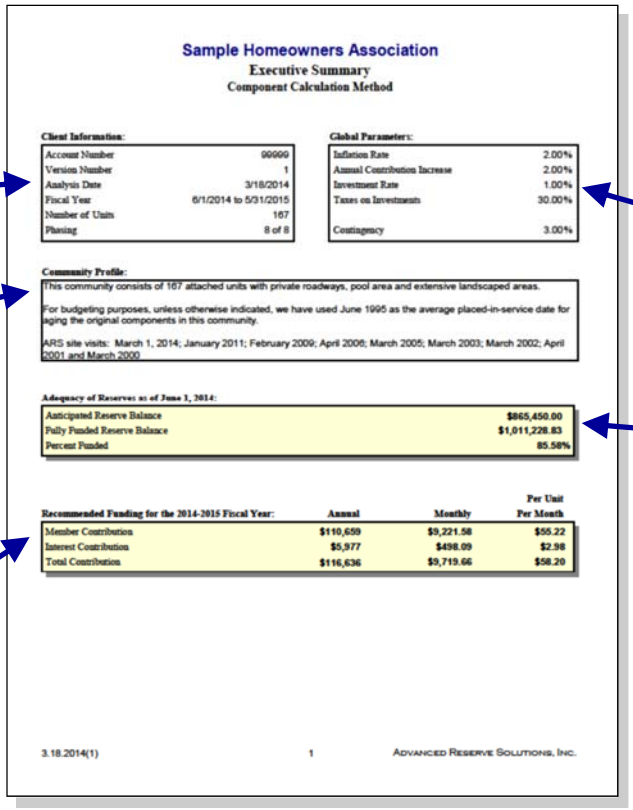
In some cases, the reserve analysis may be a lengthy document of one hundred pages or more. A complete and thorough review of the reserve analysis is always a good idea. However, if time is limited, it is suggested that a thorough review of the summary pages be made. If a "red flag" is raised in this 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.

Client Information
Provides various client information including fiscal year for which the reserve analysis was prepared, number of units, phasing, etc.

Global Parameters
Displays the calculation parameters that were used to calculate the reserve analysis including inflation, annual contribution increase, investment rate, tax rate and contingency.



Sample Homeowners Association
Executive Summary
Component Calculation Method

Client Information:

Account Number	99999
Version Number	1
Analysis Date	3/18/2014
Fiscal Year	6/1/2014 to 5/31/2015
Number of Units	167
Phasing	8 of 8

Global Parameters:

Inflation Rate	2.00%
Annual Contribution Increase	2.00%
Investment Rate	1.00%
Taxes on Investments	30.00%
Contingency	3.00%

Community Profile:
This community consists of 167 attached units with private roadways, pool area and extensive landscaped areas.

For budgeting purposes, unless otherwise indicated, we have used June 1995 as the average placed-in-service date for aging the original components in this community.

ARS site visits: March 1, 2014; January 2011; February 2009; April 2006; March 2005; March 2003; March 2002; April 2001 and March 2000

Adequacy of Reserves as of June 1, 2014:

Anticipated Reserve Balance	$865,450.00
Fully Funded Reserve Balance	$1,011,228.83
Percent Funded	85.58%

Recommended Funding for the 2014-2015 Fiscal Year:	Annual	Monthly	Per Unit Per Month
Member Contribution	$110,659	$9,221.58	$55.22
Interest Contribution	$5,977	$498.09	$2.98
Total Contribution	$116,636	$9,719.66	$58.20

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Community Profile
Provides brief description of the community, as well as other "global" type comments.

Budget
Provides recommended funding for the fiscal year for which the reserve analysis was prepared. Indicates the reserve funding from the membership, anticipated interest contribution and the total contribution

Adequacy of Reserves
Displays the results of calculations with regard to the "health" of the reserve fund as of the beginning of the fiscal year for which the reserve analysis was prepared. Provides the anticipated reserve balance, fully funded reserve balance and the percent funded.

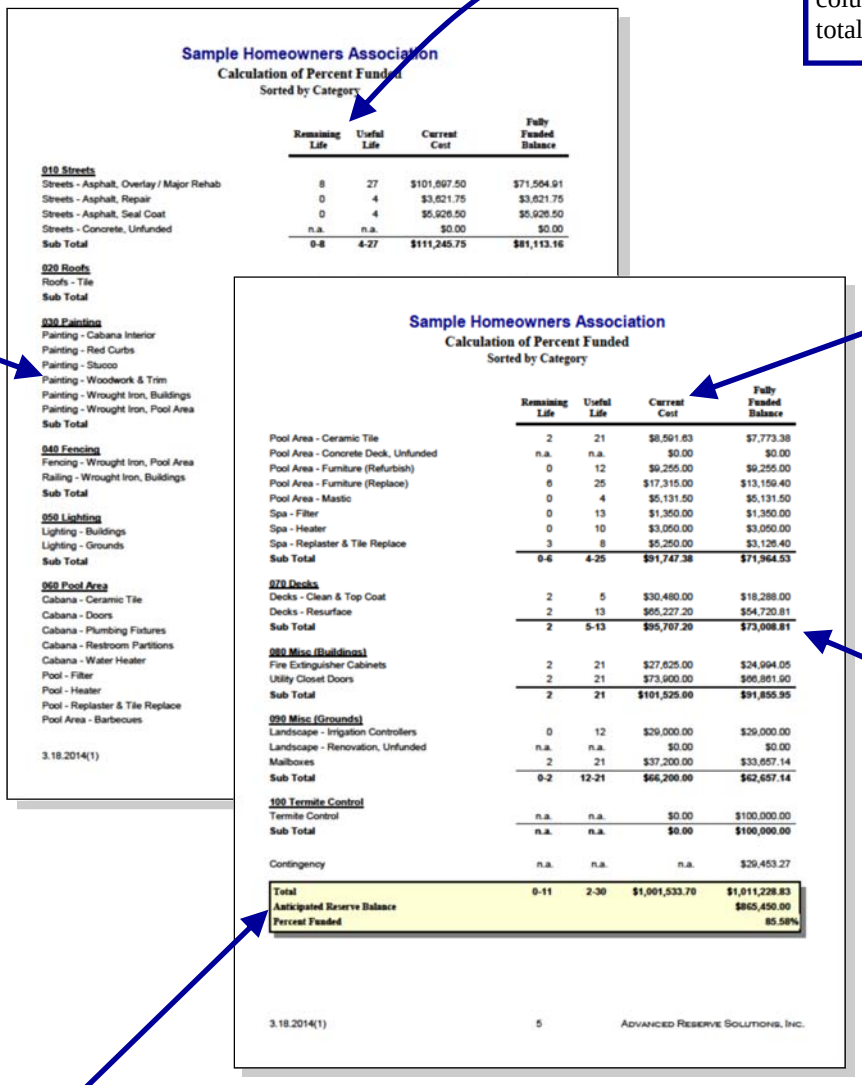
Preface

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.

Lifespans
Remaining life and useful life are displayed. And, these columns are conveniently sub totaled to show range.

Reserve Components
All components are displayed (shown here in "category" order).



Sample Homeowners Association
Calculation of Percent Funded
Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
010 Streets				
Streets - Asphalt, Overlay / Major Rehab	8	27	$101,697.50	$71,564.91
Streets - Asphalt, Repair	0	4	$3,621.75	$3,621.75
Streets - Asphalt, Seal Coat	0	4	$5,926.50	$5,926.50
Streets - Concrete, Unfunded	n.a.	n.a.	$0.00	$0.00
Sub Total	**0-8**	**4-27**	**$111,245.75**	**$81,113.16**
020 Roofs				
Roofs - Tile				
Sub Total				
030 Painting				
Painting - Cabana Interior				
Painting - Red Curbs				
Painting - Stucco				
Painting - Woodwork & Trim				
Painting - Wrought Iron, Buildings				
Painting - Wrought Iron, Pool Area				
Sub Total				
040 Fencing				
Fencing - Wrought Iron, Pool Area				
Railing - Wrought Iron, Buildings				
Sub Total				
050 Lighting				
Lighting - Buildings				
Lighting - Grounds				
Sub Total				
060 Pool Area				
Cabana - Ceramic Tile				
Cabana - Doors				
Cabana - Plumbing Fixtures				
Cabana - Restroom Partitions				
Cabana - Water Heater				
Pool - Filter				
Pool - Heater				
Pool - Replaster & Tile Replace				
Pool Area - Barbecues				

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Sample Homeowners Association
Calculation of Percent Funded
Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
Pool Area - Ceramic Tile	2	21	$8,591.63	$7,773.38
Pool Area - Concrete Deck, Unfunded	n.a.	n.a.	$0.00	$0.00
Pool Area - Furniture (Refurbish)	0	12	$9,255.00	$9,255.00
Pool Area - Furniture (Replace)	6	25	$17,315.00	$13,159.40
Pool Area - Mastic	0	4	$5,131.50	$5,131.50
Spa - Filter	0	13	$1,350.00	$1,350.00
Spa - Heater	0	10	$3,050.00	$3,050.00
Spa - Replaster & Tile Replace	3	8	$5,250.00	$3,126.40
Sub Total	**0-6**	**4-25**	**$91,747.38**	**$71,964.53**
070 Decks				
Decks - Clean & Top Coat	2	5	$30,480.00	$18,288.00
Decks - Resurface	2	13	$65,227.20	$54,720.81
Sub Total	**2**	**5-13**	**$95,707.20**	**$73,008.81**
080 Misc (Buildings)				
Fire Extinguisher Cabinets	2	21	$27,625.00	$24,994.05
Utility Closet Doors	2	21	$73,900.00	$66,861.90
Sub Total	**2**	**21**	**$101,525.00**	**$91,855.95**
090 Misc (Grounds)				
Landscape - Irrigation Controllers	0	12	$29,000.00	$29,000.00
Landscape - Renovation, Unfunded	n.a.	n.a.	$0.00	$0.00
Mailboxes	2	21	$37,200.00	$33,657.14
Sub Total	**0-2**	**12-21**	**$66,200.00**	**$62,657.14**
100 Termite Control				
Termite Control	n.a.	n.a.	$0.00	$100,000.00
Sub Total	**n.a.**	**n.a.**	**$0.00**	**$100,000.00**
Contingency	n.a.	n.a.	n.a.	$29,453.27
Total	**0-11**	**2-30**	**$1,001,533.70**	**$1,011,228.83**
Anticipated Reserve Balance				**$865,450.00**
Percent Funded				**85.58%**

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Current Cost
Displays the current cost to replace or otherwise maintain each component. This column is conveniently sub totaled.

Fully Funded Balance
Displays the fully funded balance for each component. This column is conveniently sub totaled.

The total current cost to replace or otherwise maintain all components, total fully funded balance, anticipated reserve balance and percent funded are provided at the bottom of this summary. Also shown is the range of reserve component remaining lives and useful lives.

Preface

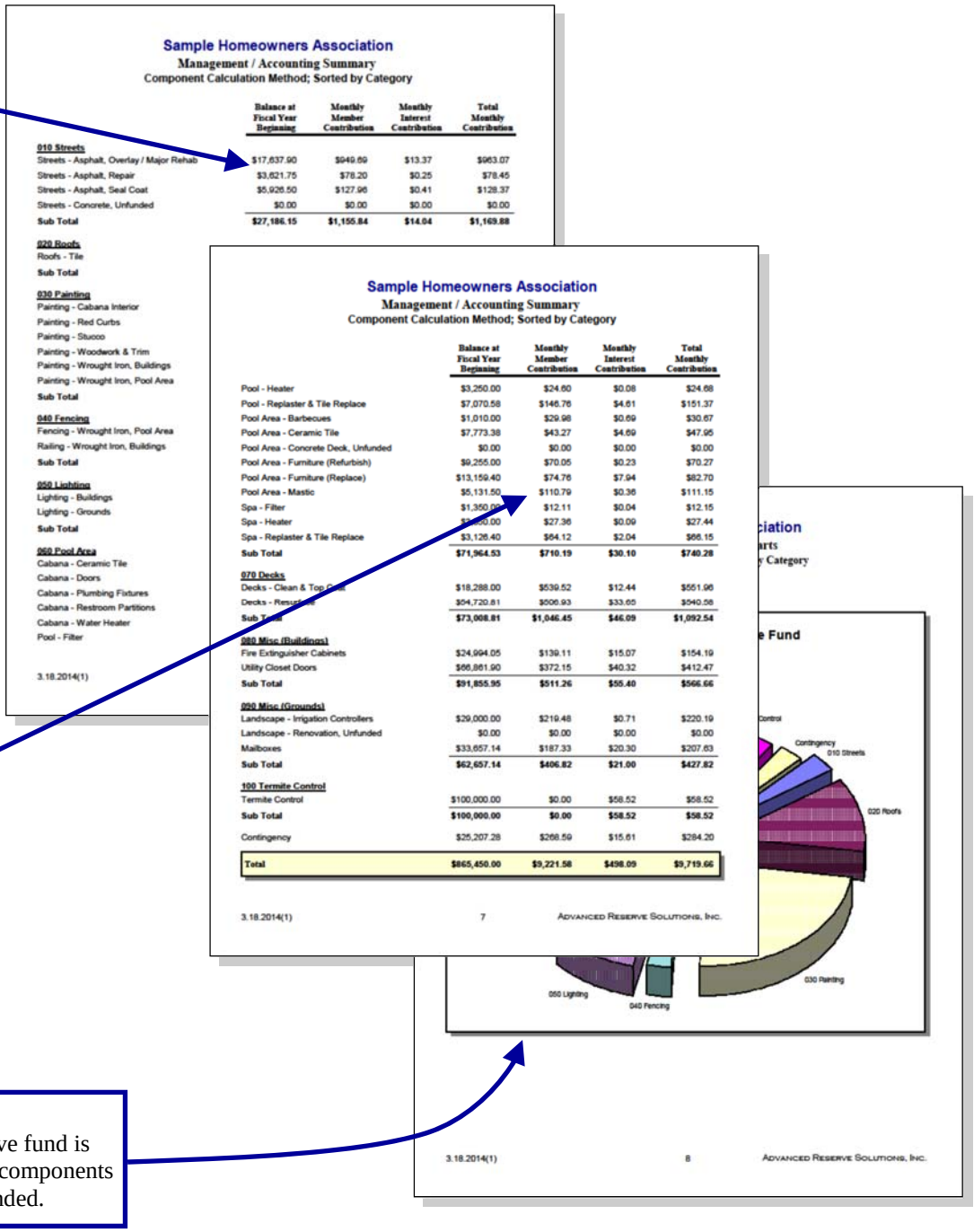
Management / Accounting Summary and Charts

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
Shows the amount of reserve funds assigned to each reserve component. And, this column is conveniently sub totaled.

Monthly Funding
Displays the monthly funding for each component from the members and interest. Total monthly funding is also indicated. And, these columns are conveniently sub totaled.

Pie Charts
Show graphically how the reserve fund is distributed amongst the reserve components and how the components are funded.



Sample Homeowners Association
Management / Accounting Summary
Component Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
010 Streets				
Streets - Asphalt, Overlay / Major Rehab	$17,637.90	$949.69	$13.37	$963.07
Streets - Asphalt, Repair	$3,621.75	$78.20	$0.25	$78.45
Streets - Asphalt, Seal Coat	$5,926.50	$127.96	$0.41	$128.37
Streets - Concrete, Unfunded	$0.00	$0.00	$0.00	$0.00
Sub Total	$27,186.15	$1,155.84	$14.04	$1,169.88
020 Roofs				
Roofs - Tile				
Sub Total				
030 Painting				
Painting - Cabana Interior				
Painting - Red Curbs				
Painting - Stucco				
Painting - Woodwork & Trim				
Painting - Wrought Iron, Buildings				
Painting - Wrought Iron, Pool Area				
Sub Total				
040 Fencing				
Fencing - Wrought Iron, Pool Area				
Railing - Wrought Iron, Buildings				
Sub Total				
050 Lighting				
Lighting - Buildings				
Lighting - Grounds				
Sub Total				
060 Pool Area				
Cabana - Ceramic Tile				
Cabana - Doors				
Cabana - Plumbing Fixtures				
Cabana - Restroom Partitions				
Cabana - Water Heater				
Pool - Filter				

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Sample Homeowners Association
Management / Accounting Summary
Component Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
Pool - Heater	$3,250.00	$24.60	$0.08	$24.68
Pool - Replaster & Tile Replace	$7,070.58	$146.76	$4.61	$151.37
Pool Area - Barbecues	$1,010.00	$29.98	$0.69	$30.67
Pool Area - Ceramic Tile	$7,773.38	$43.27	$4.69	$47.95
Pool Area - Concrete Deck, Unfunded	$0.00	$0.00	$0.00	$0.00
Pool Area - Furniture (Refurbish)	$9,255.00	$70.05	$0.23	$70.27
Pool Area - Furniture (Replace)	$13,159.40	$74.76	$7.94	$82.70
Pool Area - Mastic	$5,131.50	$110.79	$0.36	$111.15
Spa - Filter	$1,350.00	$12.11	$0.04	$12.15
Spa - Heater	$3,060.00	$27.36	$0.09	$27.44
Spa - Replaster & Tile Replace	$3,126.40	$64.12	$2.04	$66.15
Sub Total	$71,964.53	$710.19	$30.10	$740.28
070 Decks				
Decks - Clean & Top Coat	$18,288.00	$539.52	$12.44	$551.96
Decks - Resurface	$54,720.81	$506.93	$33.65	$540.58
Sub Total	$73,008.81	$1,046.45	$46.09	$1,092.54
080 Misc (Buildings)				
Fire Extinguisher Cabinets	$24,994.05	$139.11	$15.07	$154.19
Utility Closet Doors	$66,861.90	$372.15	$40.32	$412.47
Sub Total	$91,855.95	$511.26	$55.40	$566.66
090 Misc (Grounds)				
Landscape - Irrigation Controllers	$29,000.00	$219.48	$0.71	$220.19
Landscape - Renovation, Unfunded	$0.00	$0.00	$0.00	$0.00
Mailboxes	$33,657.14	$187.33	$20.30	$207.63
Sub Total	$62,657.14	$406.82	$21.00	$427.82
100 Termite Control				
Termite Control	$100,000.00	$0.00	$58.52	$58.52
Sub Total	$100,000.00	$0.00	$58.52	$58.52
Contingency	$25,207.28	$268.59	$15.61	$284.20
Total	$865,450.00	$9,221.58	$498.09	$9,719.66

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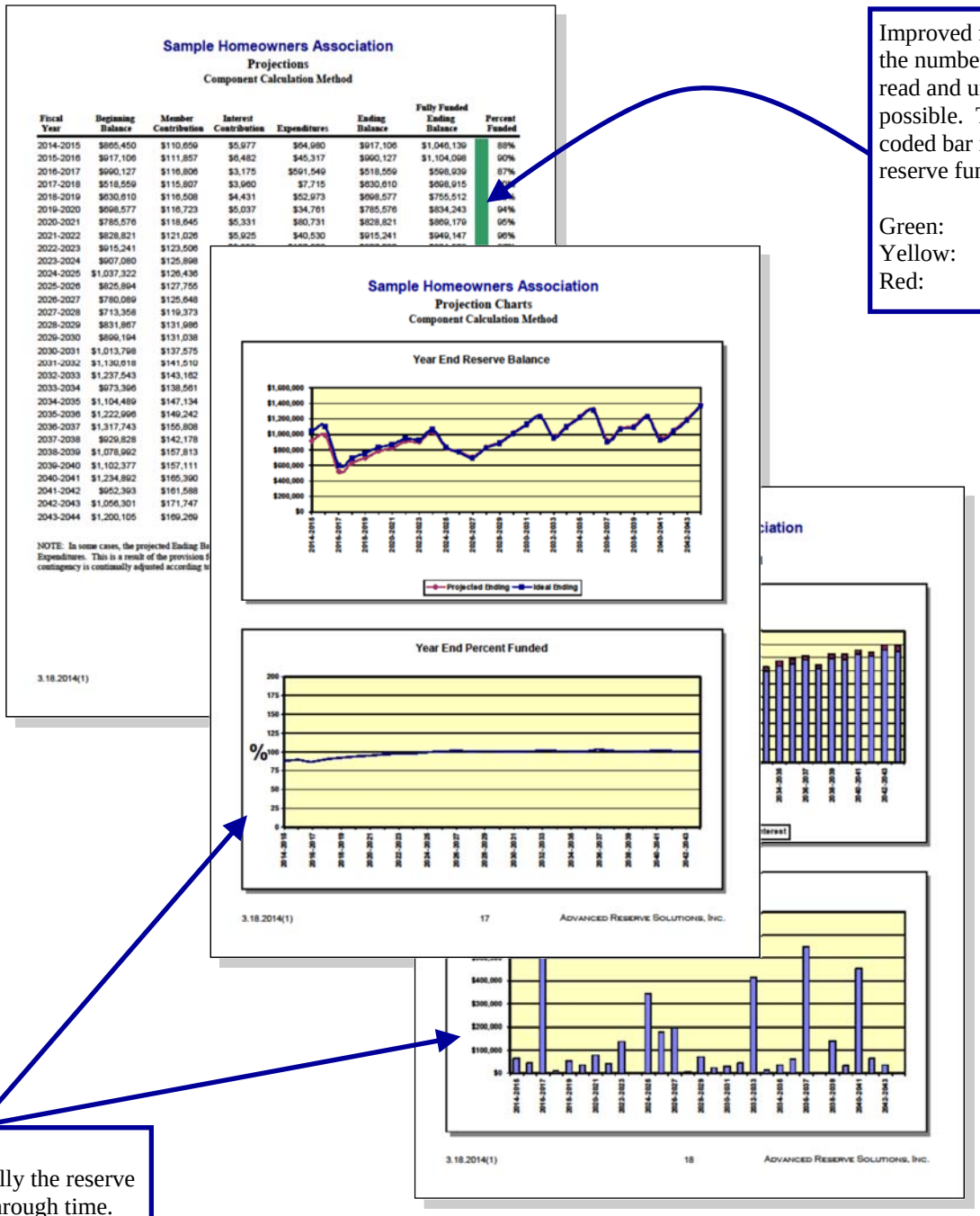
Preface

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.



Improved format makes the numbers as easy to read and understand as possible. The color-coded bar indicates the reserve fund status:

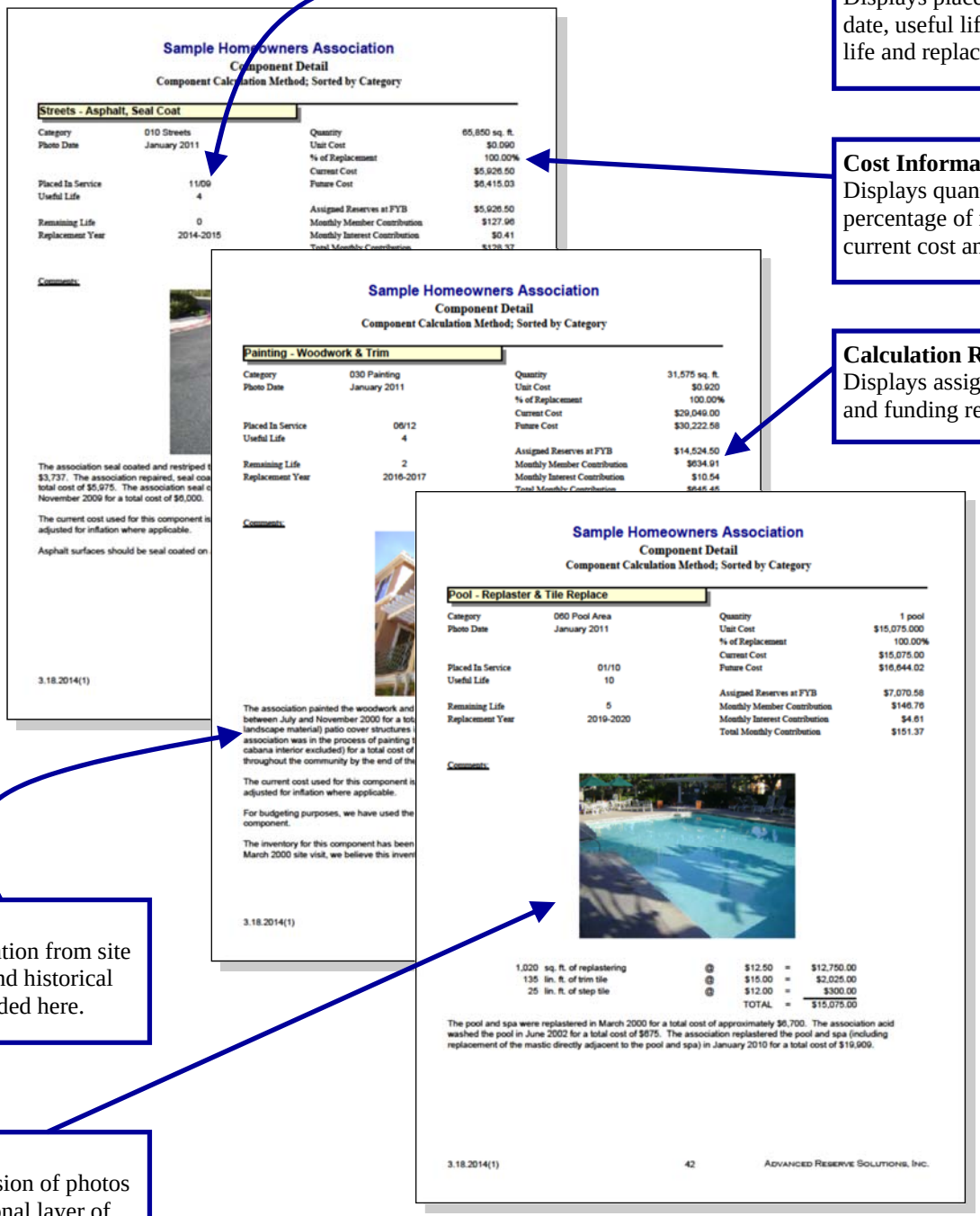
Green:	Good
Yellow:	Fair
Red:	Poor

Charts
Show graphically the reserve funding plan through time.

Preface

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.



Lifespan Information
Displays placed-in-service date, useful life, remaining life and replacement year.

Cost Information
Displays quantity, unit cost, percentage of replacement, current cost and future cost.

Calculation Results
Displays assigned reserves and funding requirements.

Comments
Useful information from site observations and historical expenses included here.

Photos
Optional inclusion of photos adds an additional layer of detail to the reserve analysis.

Preface

♦ ♦ ♦ ♦ 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 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:

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

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:

$$\text{Percent Funded} = \frac{\text{Anticipated Reserve Fund Balance}}{\text{Fully Funded Reserve Balance}}$$

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 of 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.

The Sample Condominium

Executive Summary

Directed Cash Flow Calculation Method

Client Information:

Account Number	20070
Version Number	1
Analysis Date	04/08/2020
Fiscal Year	6/1/2020 to 5/31/2021
Number of Units	64
Phasing	1 of 1

Global Parameters:

Inflation Rate	2.50 %
Annual Contribution Increase	2.50 %
Investment Rate	1.59 %
Taxes on Investments	30.00 %
Contingency	3.00 %

Community Profile:

The Sample Condominium is a 21-story mixed use residential and commercial building located in Boston, Massachusetts. 62 residential units are located on floors 2 - 18. Two commercial units are located at street level. Roof terrace and mechanical rooms are located on floors 19-21.

Building has a four level parking garage underneath. Amenities include entrance lobby with concierge, common lounge area on second floor, and 19th floor common rooftop terrace. Three units have individual terraces. The steel and concrete building has brick and EIFS (synthetic stucco) siding. Aluminum windows and panels cover the balance of the exterior walls. The roof is comprised of low-slope membrane areas. Roof terrace areas are concrete pavers supported by a pedestal system. Construction of the building was completed in December 2000. A placed-in-service date of 6/2000 will be used for original components.

ARS site visits: December 26, 2019 & March 12, 2020.

Adequacy of Reserves as of June 1, 2020:

Anticipated Reserve Balance	**$535,092.00**
Fully Funded Reserve Balance	**$1,823,481.27**
Percent Funded	**29.34%**

Recommended Funding for the 2020-2021 Fiscal Year:	Annual	Monthly	Per Unit Per Month
Member Contribution	**$301,000**	**$25,083.33**	**$391.93**
Interest Contribution	**$6,574**	**$547.80**	**$8.56**
Total Contribution	**$307,574**	**$25,631.13**	**$400.49**

The Sample Condominium

Preparer's Disclosure Statement

Paul Huijing, P.E. completed this reserve study. Consultant certifies that:

1) Consultant has no other involvement with association which could result in actual or perceived conflicts of interest.

2) Consultant made site visits to this community on December 26, 2019 & March 12, 2020.

3) Component conditional assessments were developed by actual field observation and representative sampling.

4) Financial assumptions used in this analysis are listed on the Executive Summary and further explained in the Preface of this report.

5) This is a "Level 2" update reserve study with a site visit.

6) Exterior unit windows and doors are responsibility of association per property manager. Unit doors to common hallway are also association responsibility.

7) Numerous areas takeoffs made from building plans provided by property manager.

8) Study does not consider effects of global warming.

9) There are no other material issues known to consultant at this time which would cause a distortion of the association's situation.

The Sample Condominium

Note Pad

Grandview Comments:

Current reserve contribution for 2019/2020 fiscal year: $11,034 monthly
Total anticipated reserve balance of approximately $455,092 as of 6/1/20, per property manager meeting 3/12/2020. In addition, it is anticipated that $80,000 will be added to reserves for reimbursements from laundry shut off valve project. Total used for calculations is $535,092.
Investment rate on reserve funds is 1.59%, per client.

Client is considering installing electrical infrastructure to provide capacity to have electric vehicle charging stations at each parking garage space. Cost is $36,600. Unit owners would still have to pay about $1500 to install charging station at their space. Upgrade is not currently included in reserve study funding.

Specific Comments:
Interior and minor exterior painting is covered from operating budget, per building manager.

In addition to components listed individually, the following components are currently unfunded:
- Galvanized steel gates to mechanical roof areas
- Metal lockers in opera corridor
- Artwork hanging in common areas
- Trash rooms
- Staff restroom
- Stairs and stair railings
- Roof anchor points
- Lighting in utility spaces
- Equipment
  - Neptune chemical bypass feeders
  - Tesla EV car chargers responsibility of unit owners
  - Small number of electric unit heaters in mechanical rooms

Components for any of these items can be added if desired.

General unfunded components:
The following components are often repaired and/or replaced on an as-needed basis and not funded for a complete replacement at one time. There is no practical method to determine the remaining life of these components. Periodic allowances can be included if association has experienced past replacements of these components.

Concrete: Anticipated to last life of building. Typically, budgeting for concrete repairs as a reserve component is excluded as it is anticipated repairs required will be addressed immediately due to safety concerns. Minor repairs should be addressed using the client's operating and/or reserve contingency funds. Should the client desire, funding for this component can be included. Areas include but are not limited to: foundations, walls (exterior/interior), balconies, parking structure and decks.

Wood & steel structural framing: Anticipated to last life of building. Repairs done on as-needed basis.

Plumbing pipes: Plumbing systems are built to last the legal life of a building/site. Complete replacement of the common area plumbing pipes (including main and lateral service pipes) is expensive and requires removal of walls, ceilings and floors. Repairs to this type of system are typically done on an as-needed basis for safety and/or building preservation. It is rare that a complete plumbing system is replaced. Most repairs and/or replacements are due to unforeseen issues, product defects, construction defects, improper installation, or from improper chemical treatments. Storm water piping system (if any) is also built to last legal life of association. Repairs to this type of system are also done on an as-needed basis.

Electrical services (lines/meters): Electrical service systems are built to last the legal life of a building/site. Complete replacement of the electrical service lines is expensive and requires removal of walls, ceilings and floors. Repairs required

will typically be addressed immediately due to safety concerns. It is rare that a complete electrical system is replaced. Most repairs and/or replacements are due to unforeseen issues, product defects, construction defects, or improper installation.

General Emergency Lighting: The emergency lighting should be tested periodically. Any damaged or not working units should be repaired/replaced immediately.

The Sample Condominium

Calculation of Percent Funded

Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
005 Site				
Site - Paver Sidewalk Areas	4	5	$3,000.00	$600.00
Sub Total	**4**	**5**	**$3,000.00**	**$600.00**
010 Roof				
Roof - Access Hatch	20	40	$4,000.00	$2,000.00
Roof - General Life Extension Measures	1	2	$55,875.00	$27,937.50
Roof - Ladder Replacement	0	20	$3,500.00	$3,500.00
Roof - Parapet Wall Caps	1	5	$3,000.00	$2,400.00
Roof - Skylights, Glass Replacement	3	3	$5,000.00	$0.00
Roof - Terrace Pergola, Unfunded	n.a.	n.a.	$0.00	$0.00
Roof Area - 19th Floor Hallway Area	10	30	$10,000.00	$6,666.67
Roof Area - Adjacent Boiler Room, Northeast	10	30	$28,000.00	$18,666.67
Roof Area - Adjacent Boiler Room, Southeast	11	20	$14,900.00	$6,705.00
Roof Area - Bay and Projection Areas	2	22	$62,000.00	$56,363.64
Roof Area - Boiler Room	12	32	$17,000.00	$10,625.00
Roof Area - Elevator Machine Room	12	32	$24,800.00	$15,500.00
Roof Area - Generator Room	12	32	$9,200.00	$5,750.00
Roof Area - Opera Corridor	10	30	$20,000.00	$13,333.33
Roof Area - Terrace, 9th Floor	8	28	$40,080.00	$28,628.57
Roof Area - Terrace, Common Area	14	20	$42,280.00	$12,684.00
Roof Area - Terraces, Penthouse	8	28	$7,040.00	$5,028.57
Sub Total	**0-20**	**2-40**	**$346,675.00**	**$215,788.95**
020 Building Exterior				
Exterior - Awning, Main Entry	10	30	$8,500.00	$5,666.67
Exterior - Cladding, Aluminum, Unfunded	n.a.	n.a.	$0.00	$0.00
Exterior - Cladding, EIFS Maintenance	2	5	$2,000.00	$1,200.00
Exterior - Cladding, EIFS, Recoat	10	30	$111,440.00	$74,293.33
Exterior - Cladding, Inspection	0	5	$11,000.00	$11,000.00
Exterior - Cladding, Major Repairs	20	15	$49,230.00	$0.00
Exterior - Cladding, Major Repairs, Initial	5	25	$36,922.50	$29,538.00
Exterior - Cladding, Minor Repairs	0	5	$20,000.00	$20,000.00
Exterior - Doors, Glass	5	5	$3,600.00	$0.00
Exterior - Doors, Main Entrance	15	35	$30,000.00	$17,142.86
Exterior - Doors, Main Entrance, Minor Repairs	1	2	$2,000.00	$1,000.00
Exterior - Doors, Steel	5	5	$3,350.00	$0.00
Exterior - Doors, Trash Room	4	24	$5,000.00	$4,166.67

The Sample Condominium

Calculation of Percent Funded

Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
Exterior - Furnishings, Roof Terrace	6	10	$4,000.00	$1,600.00
Exterior - Lighting	5	25	$5,400.00	$4,320.00
Exterior - Lighting, Front Façade	19	20	$12,000.00	$600.00
Exterior - Railings	20	40	$21,700.00	$10,850.00
Exterior - Windows, Commercial & Common	15	35	$73,500.00	$42,000.00
Exterior - Windows, Frames	n.a.	n.a.	$0.00	$0.00
Exterior - Windows, Glass Replacement	1	1	$37,500.00	$0.00
Sub Total	**0-20**	**1-40**	**$437,142.50**	**$223,377.52**
025 Parking Garage				
Garage - Concrete Repairs	6	10	$10,000.00	$4,000.00
Garage - Floor Coating, Parking Stalls	1	21	$170,334.00	$162,222.86
Garage - Floor Coating, Traffic Lane	1	6	$88,920.00	$74,100.00
Garage - Floor, Parking Striping	1	5	$1,800.00	$1,440.00
Garage - Lighting	7	10	$25,250.00	$7,575.00
Sub Total	**1-7**	**5-21**	**$296,304.00**	**$249,337.86**
030 Building Interior				
Interior - Doors, Common	10	5	$7,500.00	$0.00
Interior - Doors, Unit	10	5	$2,880.00	$0.00
Interior - Flooring, Carpet, 2nd Floor Lounge Area	4	8	$11,508.00	$5,754.00
Interior - Flooring, Carpet, Hallways	4	8	$124,740.00	$62,370.00
Interior - Flooring, Tile, Lobby	16	20	$17,500.00	$3,500.00
Interior - Flooring, Vinyl, Chilewich	13	17	$8,625.00	$2,029.41
Interior - Flooring, Vinyl, VCT	5	25	$13,300.00	$10,640.00
Interior - Furnishings, Lobby & 2nd Floor Lounge	11	15	$26,900.00	$7,173.33
Interior - Lighting, 2nd Floor Lounge	21	25	$4,075.00	$652.00
Interior - Lighting, Lobby	21	25	$8,650.00	$1,384.00
Interior - Lighting, Stairwells	5	25	$9,000.00	$7,200.00
Interior - Lighting, Unit Hallways	21	25	$37,550.00	$6,008.00
Interior - Lobby Renovation	11	15	$20,000.00	$5,333.33
Interior - Opera Corridor, Unfunded	n.a.	n.a.	$0.00	$0.00
Interior - Signage Allowance	10	30	$5,000.00	$3,333.33
Interior - Wall Coverings	11	15	$18,168.00	$4,844.80
Sub Total	**4-21**	**5-30**	**$315,396.00**	**$120,222.21**
090 Equipment				
Equipment - Access & Security Systems	3	7	$20,000.00	$11,428.57
Equipment - Boilers	19	20	$90,000.00	$4,500.00

The Sample Condominium

Calculation of Percent Funded

Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
Equipment - Building Automation System	2	5	$5,000.00	$3,000.00
Equipment - Domestic Hot Water, Indirect Tanks	11	12	$16,000.00	$1,333.33
Equipment - Domestic Hot Water, Mixing Valve	14	15	$5,000.00	$333.33
Equipment - Domestic Hot Water, Pump	14	15	$2,000.00	$133.33
Equipment - Electrical Repairs	5	5	$5,000.00	$0.00
Equipment - Elevator Cab Refurbish	11	15	$40,000.00	$10,666.67
Equipment - Elevator Machine Room, Minisplit	11	15	$5,500.00	$1,466.67
Equipment - Elevator Modernization	10	30	$350,000.00	$233,333.33
Equipment - Elevator, Door Operators	0	19	$36,564.00	$36,564.00
Equipment - Emergency Communication BDA	4	24	$13,500.00	$11,250.00
Equipment - Fire Alarm	3	23	$65,000.00	$56,521.74
Equipment - Fire Sprinkler, Compressor	3	23	$2,000.00	$1,739.13
Equipment - Fire Sprinkler, Jockey Pump	3	23	$5,000.00	$4,347.83
Equipment - Fire Sprinkler, Main Pump	15	35	$32,500.00	$18,571.43
Equipment - Fire Sprinkler, Main Pump, Rebuild	2	22	$5,000.00	$4,545.45
Equipment - Garage Access System%date	8	12	$5,000.00	$1,666.67
Equipment - Garage CO Detection	0	19	$11,100.00	$11,100.00
Equipment - Garage LED Signs	0	10	$3,000.00	$3,000.00
Equipment - Garage Overhead Door	13	20	$50,000.00	$17,500.00
Equipment - Garage, Unit Heaters	10	30	$7,000.00	$4,666.67
Equipment - Garage, Ventilation	4	8	$7,000.00	$3,500.00
Equipment - Generator	30	50	$250,000.00	$100,000.00
Equipment - Generator, Partial Rebuild	3	23	$15,000.00	$13,043.48
Equipment - HVAC Pumps, Cooling Water	3	23	$20,000.00	$17,391.30
Equipment - HVAC Pumps, Heating Water	3	23	$16,000.00	$13,913.04
Equipment - HVAC Pumps, VFD, Cooling Water	15	20	$12,500.00	$3,125.00
Equipment - HVAC Pumps, VFD, Heating Water	15	20	$12,500.00	$3,125.00
Equipment - HVAC, Boiler Room Rebuild	19	20	$168,750.00	$8,437.50
Equipment - HVAC, Building Ventilation	4	5	$2,500.00	$500.00
Equipment - HVAC, Chiller Repairs	4	4	$80,000.00	$0.00
Equipment - HVAC, Chiller Replacements	10	30	$410,000.00	$273,333.33
Equipment - HVAC, PTAC	2	22	$9,000.00	$8,181.82
Equipment - HVAC, Smoke Control	20	40	$20,000.00	$10,000.00
Equipment - HVAC, Unit Air Handlers	1	2	$2,500.00	$1,250.00
Equipment - HVAC, Unit Heaters	10	30	$9,000.00	$6,000.00
Equipment - HVAC, Ventilation, General	3	3	$6,750.00	$0.00
Equipment - Mailboxes	15	35	$5,250.00	$3,000.00

The Sample Condominium

Calculation of Percent Funded

Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
Equipment - Office & Concierge	2	3	$2,000.00	$666.67
Equipment - Pumps, Domestic Water Booster	11	12	$41,780.00	$3,481.67
Equipment - Pumps, Foundation Drain	11	15	$10,000.00	$2,666.67
Equipment - Pumps, Garage Drains	8	12	$10,000.00	$3,333.33
Equipment - Pumps, Gas Pressure Booster	5	25	$21,000.00	$16,800.00
Equipment - Tanks, Fuel Pumps	5	25	$15,000.00	$12,000.00
Equipment - Tanks, Fuel Storage	20	40	$8,000.00	$4,000.00
Equipment - Trash Compactor	5	25	$18,000.00	$14,400.00
Equipment - Trash Containers	11	15	$4,600.00	$1,226.67
Sub Total	**0-30**	**2-50**	**$1,951,294.00**	**$961,043.63**
Contingency	n.a.	n.a.	n.a.	$53,111.10
Total	**0-30**	**1-50**	**$3,349,811.50**	**$1,823,481.27**
Anticipated Reserve Balance				**$535,092.00**
Percent Funded				**29.34%**

The Sample Condominium

Management / Accounting Summary

Directed Cash Flow Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
005 Site				
Site - Paver Sidewalk Areas	$0.00	$44.13	$0.30	$44.42
Sub Total	**$0.00**	**$44.13**	**$0.30**	**$44.42**
010 Roof				
Roof - Access Hatch	$0.00	$13.08	$0.09	$13.17
Roof - General Life Extension Measures	$27,937.50	$1,632.45	$34.53	$1,666.97
Roof - Ladder Replacement	$3,500.00	$0.00	$0.00	$0.00
Roof - Parapet Wall Caps	$2,400.00	$36.46	$2.26	$38.72
Roof - Skylights, Glass Replacement	$0.00	$97.40	$0.66	$98.06
Roof - Terrace Pergola, Unfunded	$0.00	$0.00	$0.00	$0.00
Roof Area - 19th Floor Hallway Area	$0.00	$61.24	$0.41	$61.65
Roof Area - Adjacent Boiler Room, Northeast	$0.00	$171.47	$1.16	$172.63
Roof Area - Adjacent Boiler Room, Southeast	$0.00	$83.50	$0.57	$84.07
Roof Area - Bay and Projection Areas	$56,363.64	$207.38	$48.70	$256.08
Roof Area - Boiler Room	$0.00	$87.91	$0.59	$88.50
Roof Area - Elevator Machine Room	$0.00	$128.25	$0.87	$129.12
Roof Area - Generator Room	$0.00	$47.57	$0.32	$47.90
Roof Area - Opera Corridor	$0.00	$122.48	$0.83	$123.31
Roof Area - Terrace, 9th Floor	$0.00	$302.75	$2.05	$304.81
Roof Area - Terrace, Common Area	$0.00	$189.89	$1.29	$191.17
Roof Area - Terraces, Penthouse	$0.00	$53.18	$0.36	$53.54
Sub Total	**$90,201.14**	**$3,234.99**	**$94.69**	**$3,329.69**
020 Building Exterior				
Exterior - Awning, Main Entry	$0.00	$52.05	$0.35	$52.40
Exterior - Cladding, Aluminum, Unfunded	$0.00	$0.00	$0.00	$0.00
Exterior - Cladding, EIFS Maintenance	$1,200.00	$24.15	$1.17	$25.32
Exterior - Cladding, EIFS, Recoat	$0.00	$682.44	$4.64	$687.08
Exterior - Cladding, Inspection	$11,000.00	$130.31	$0.88	$131.19
Exterior - Cladding, Major Repairs	$0.00	$160.95	$1.09	$162.04
Exterior - Cladding, Major Repairs, Initial	$0.00	$437.39	$2.97	$440.36
Exterior - Cladding, Minor Repairs	$20,000.00	$236.92	$1.61	$238.53
Exterior - Doors, Glass	$0.00	$42.65	$0.29	$42.93
Exterior - Doors, Main Entrance	$0.00	$126.58	$0.86	$127.44
Exterior - Doors, Main Entrance, Minor Repairs	$1,000.00	$58.43	$1.23	$59.67
Exterior - Doors, Steel	$0.00	$39.68	$0.27	$39.95

The Sample Condominium

Management / Accounting Summary

Directed Cash Flow Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
Exterior - Doors, Trash Room	$0.00	$73.54	$0.50	$74.04
Exterior - Furnishings, Roof Terrace	$0.00	$39.75	$0.27	$40.02
Exterior - Lighting	$0.00	$63.97	$0.43	$64.40
Exterior - Lighting, Front Façade	$0.00	$41.03	$0.28	$41.31
Exterior - Railings	$0.00	$70.94	$0.49	$71.43
Exterior - Windows, Commercial & Common	$0.00	$310.12	$2.11	$312.23
Exterior - Windows, Frames	$0.00	$0.00	$0.00	$0.00
Exterior - Windows, Glass Replacement	$0.00	$2,162.07	$14.68	$2,176.75
Sub Total	**$33,200.00**	**$4,752.98**	**$34.10**	**$4,787.08**
025 Parking Garage				
Garage - Concrete Repairs	$0.00	$99.38	$0.68	$100.06
Garage - Floor Coating, Parking Stalls	$162,222.86	$593.69	$140.15	$733.84
Garage - Floor Coating, Traffic Lane	$74,100.00	$912.02	$68.37	$980.39
Garage - Floor, Parking Striping	$1,440.00	$21.87	$1.36	$23.23
Garage - Lighting	$0.00	$216.53	$1.47	$218.00
Sub Total	**$237,762.86**	**$1,843.50**	**$212.02**	**$2,055.52**
030 Building Interior				
Interior - Doors, Common	$0.00	$45.93	$0.32	$46.24
Interior - Doors, Unit	$0.00	$17.64	$0.12	$17.75
Interior - Flooring, Carpet, 2nd Floor Lounge Are	$0.00	$169.26	$1.15	$170.42
Interior - Flooring, Carpet, Hallways	$0.00	$1,834.73	$12.46	$1,847.19
Interior - Flooring, Tile, Lobby	$0.00	$69.68	$0.48	$70.16
Interior - Flooring, Vinyl, Chilewich	$0.00	$41.44	$0.28	$41.72
Interior - Flooring, Vinyl, VCT	$0.00	$157.55	$1.07	$158.62
Interior - Furnishings, Lobby & 2nd Floor Lounge	$0.00	$150.75	$1.03	$151.78
Interior - Lighting, 2nd Floor Lounge	$0.00	$12.77	$0.09	$12.86
Interior - Lighting, Lobby	$0.00	$27.11	$0.18	$27.29
Interior - Lighting, Stairwells	$0.00	$106.61	$0.72	$107.33
Interior - Lighting, Unit Hallways	$0.00	$117.68	$0.80	$118.48
Interior - Lobby Renovation	$0.00	$112.08	$0.77	$112.85
Interior - Opera Corridor, Unfunded	$0.00	$0.00	$0.00	$0.00
Interior - Signage Allowance	$0.00	$30.62	$0.21	$30.83
Interior - Wall Coverings	$0.00	$101.82	$0.69	$102.51
Sub Total	**$0.00**	**$2,995.67**	**$20.35**	**$3,016.02**

The Sample Condominium

Management / Accounting Summary

Directed Cash Flow Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
090 Equipment				
Equipment - Access & Security Systems	$11,428.57	$175.85	$10.78	$186.63
Equipment - Boilers	$0.00	$307.72	$2.09	$309.81
Equipment - Building Automation System	$3,000.00	$60.38	$2.93	$63.30
Equipment - Domestic Hot Water, Indirect Tanks	$0.00	$89.67	$0.61	$90.28
Equipment - Domestic Hot Water, Mixing Valve	$0.00	$22.46	$0.15	$22.61
Equipment - Domestic Hot Water, Pump	$0.00	$8.98	$0.06	$9.05
Equipment - Electrical Repairs	$0.00	$59.23	$0.41	$59.64
Equipment - Elevator Cab Refurbish	$0.00	$224.17	$1.52	$225.69
Equipment - Elevator Machine Room, Minisplit	$0.00	$30.82	$0.21	$31.03
Equipment - Elevator Modernization	$0.00	$2,143.35	$14.55	$2,157.90
Equipment - Elevator, Door Operators	$36,564.00	$119.54	$0.81	$120.35
Equipment - Emergency Communication BDA	$0.00	$198.56	$1.35	$199.91
Equipment - Fire Alarm	$28,171.51	$739.30	$28.66	$767.95
Equipment - Fire Sprinkler, Compressor	$1,739.13	$6.43	$1.50	$7.94
Equipment - Fire Sprinkler, Jockey Pump	$4,347.83	$16.08	$3.75	$19.84
Equipment - Fire Sprinkler, Main Pump	$0.00	$137.13	$0.93	$138.06
Equipment - Fire Sprinkler, Main Pump, Rebuild	$4,545.45	$16.72	$3.92	$20.65
Equipment - Garage Access System%date	$0.00	$37.77	$0.25	$38.02
Equipment - Garage CO Detection	$11,100.00	$57.40	$0.39	$57.79
Equipment - Garage LED Signs	$3,000.00	$18.37	$0.13	$18.50
Equipment - Garage Overhead Door	$0.00	$240.25	$1.63	$241.88
Equipment - Garage, Unit Heaters	$0.00	$42.87	$0.29	$43.15
Equipment - Garage, Ventilation	$0.00	$102.96	$0.70	$103.66
Equipment - Generator	$0.00	$580.91	$3.94	$584.85
Equipment - Generator, Partial Rebuild	$13,043.48	$48.25	$11.27	$59.52
Equipment - HVAC Pumps, Cooling Water	$17,391.30	$64.33	$15.03	$79.36
Equipment - HVAC Pumps, Heating Water	$13,913.04	$51.46	$12.02	$63.49
Equipment - HVAC Pumps, VFD, Cooling Water	$0.00	$52.74	$0.36	$53.10
Equipment - HVAC Pumps, VFD, Heating Water	$0.00	$52.74	$0.36	$53.10
Equipment - HVAC, Boiler Room Rebuild	$0.00	$576.98	$3.92	$580.90
Equipment - HVAC, Building Ventilation	$0.00	$36.77	$0.25	$37.02
Equipment - HVAC, Chiller Repairs	$0.00	$1,176.68	$7.98	$1,184.66
Equipment - HVAC, Chiller Replacements	$0.00	$2,510.78	$17.05	$2,527.82
Equipment - HVAC, PTAC	$8,181.82	$30.10	$7.07	$37.17
Equipment - HVAC, Smoke Control	$0.00	$65.39	$0.44	$65.83

The Sample Condominium

Management / Accounting Summary

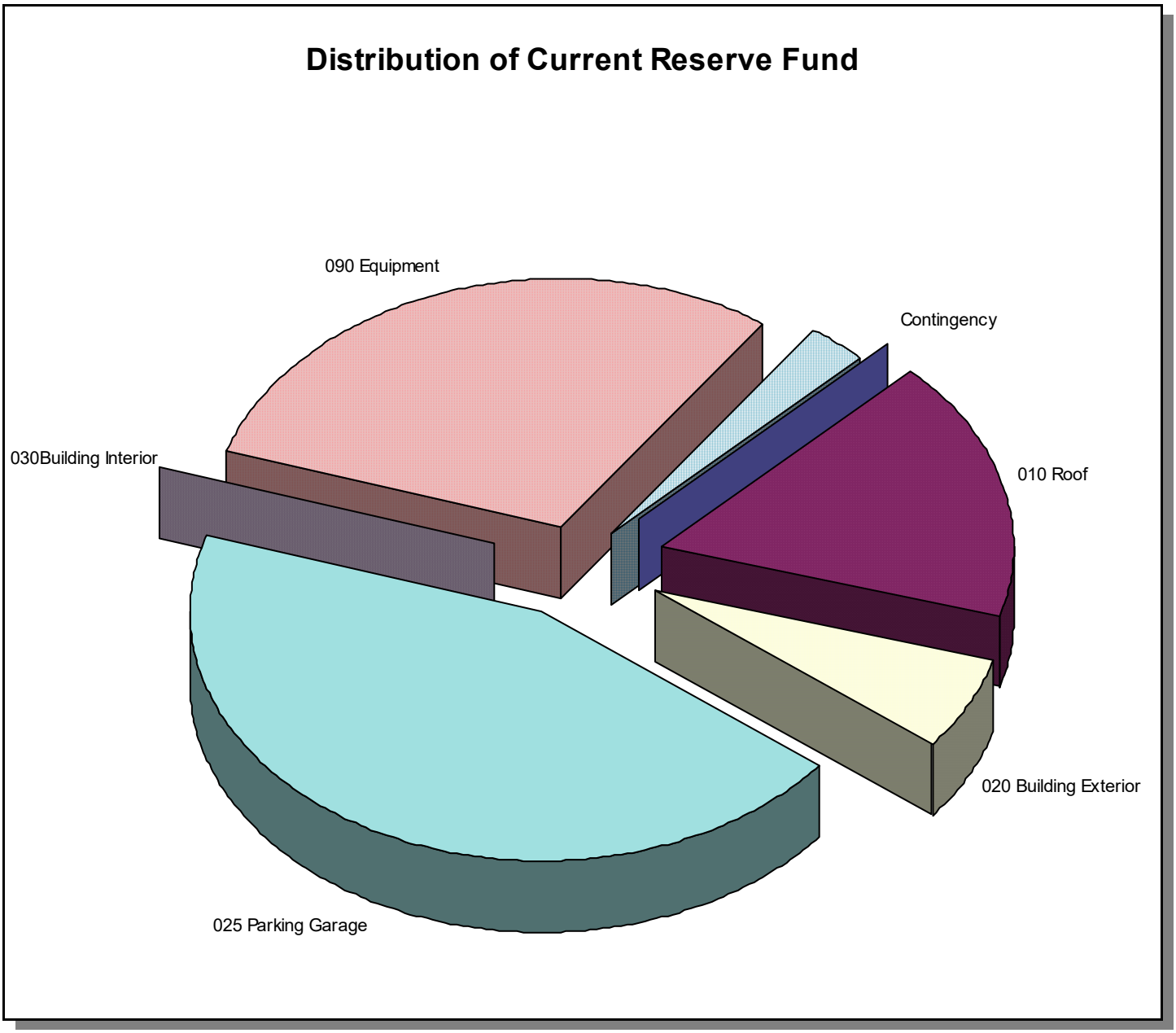
Directed Cash Flow Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
Equipment - HVAC, Unit Air Handlers	$1,250.00	$73.04	$1.55	$74.59
Equipment - HVAC, Unit Heaters	$0.00	$55.11	$0.38	$55.49
Equipment - HVAC, Ventilation, General	$0.00	$131.49	$0.89	$132.38
Equipment - Mailboxes	$0.00	$22.15	$0.15	$22.30
Equipment - Office & Concierge	$666.67	$39.22	$0.83	$40.04
Equipment - Pumps, Domestic Water Booster	$0.00	$234.14	$1.59	$235.73
Equipment - Pumps, Foundation Drain	$0.00	$56.04	$0.38	$56.42
Equipment - Pumps, Garage Drains	$0.00	$75.54	$0.51	$76.05
Equipment - Pumps, Gas Pressure Booster	$0.00	$248.77	$1.69	$250.46
Equipment - Tanks, Fuel Pumps	$0.00	$177.69	$1.21	$178.90
Equipment - Tanks, Fuel Storage	$0.00	$26.15	$0.18	$26.33
Equipment - Trash Compactor	$0.00	$213.23	$1.45	$214.68
Equipment - Trash Containers	$0.00	$25.78	$0.17	$25.95
Sub Total	**$158,342.80**	**$11,481.48**	**$168.29**	**$11,649.77**
Contingency	$15,585.20	$730.58	$18.04	$748.62
Total	**$535,092.00**	**$25,083.33**	**$547.80**	**$25,631.13**

The Sample Condominium

Management / Accounting Charts

Directed Cash Flow Calculation Method; Sorted by Category

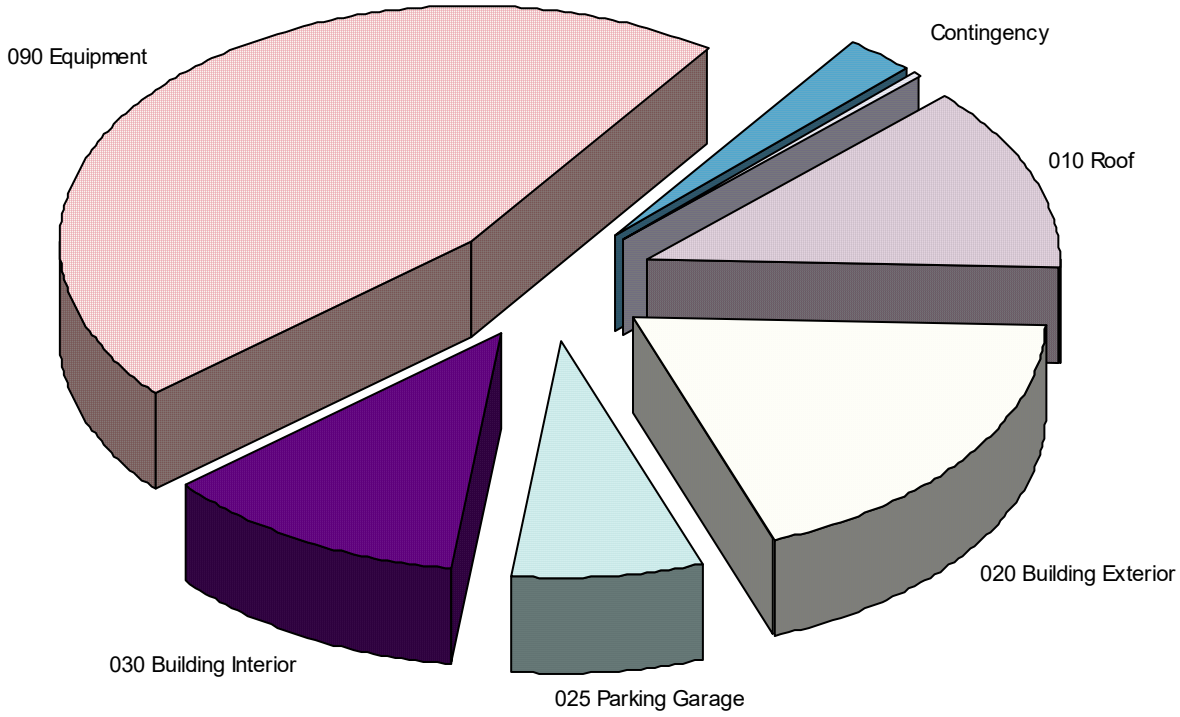


The Sample Condominium

Management / Accounting Charts

Directed Cash Flow Calculation Method; Sorted by Category

Monthly Member Contribution



The Sample Condominium

Annual Expenditure Detail

Sorted by Description

2020-2021 Fiscal Year	
Equipment - Elevator, Door Operators	$36,564.00
Equipment - Garage CO Detection	$11,100.00
Equipment - Garage LED Signs	$3,000.00
Exterior - Cladding, Inspection	$11,000.00
Exterior - Cladding, Minor Repairs	$20,000.00
Roof - Ladder Replacement	$3,500.00
Sub Total	**$85,164.00**
2021-2022 Fiscal Year	
Equipment - HVAC, Unit Air Handlers	$2,562.50
Exterior - Doors, Main Entrance, Minor Repairs	$2,050.00
Exterior - Windows, Glass Replacement	$38,437.50
Garage - Floor Coating, Parking Stalls	$174,592.35
Garage - Floor Coating, Traffic Lane	$91,143.00
Garage - Floor, Parking Striping	$1,845.00
Roof - General Life Extension Measures	$57,271.88
Roof - Parapet Wall Caps	$3,075.00
Sub Total	**$370,977.23**
2022-2023 Fiscal Year	
Equipment - Building Automation System	$5,253.13
Equipment - Fire Sprinkler, Main Pump, Rebuild	$5,253.13
Equipment - HVAC, PTAC	$9,455.63
Equipment - Office & Concierge	$2,101.25
Exterior - Cladding, EIFS Maintenance	$2,101.25
Exterior - Windows, Glass Replacement	$39,398.44
Roof Area - Bay and Projection Areas	$65,138.75
Sub Total	**$128,701.56**
2023-2024 Fiscal Year	
Equipment - Access & Security Systems	$21,537.81
Equipment - Fire Alarm	$69,997.89
Equipment - Fire Sprinkler, Compressor	$2,153.78
Equipment - Fire Sprinkler, Jockey Pump	$5,384.45
Equipment - Generator, Partial Rebuild	$16,153.36
Equipment - HVAC Pumps, Cooling Water	$21,537.81
Equipment - HVAC Pumps, Heating Water	$17,230.25
Equipment - HVAC, Unit Air Handlers	$2,692.23
Equipment - HVAC, Ventilation, General	$7,269.01

The Sample Condominium

Annual Expenditure Detail

Sorted by Description

Exterior - Doors, Main Entrance, Minor Repairs	$2,153.78
Exterior - Windows, Glass Replacement	$40,383.40
Roof - Skylights, Glass Replacement	$5,384.45
Sub Total	**$211,878.23**
2024-2025 Fiscal Year	
Equipment - Emergency Communication BDA	$14,901.47
Equipment - Garage, Ventilation	$7,726.69
Equipment - HVAC, Building Ventilation	$2,759.53
Equipment - HVAC, Chiller Repairs	$88,305.03
Exterior - Doors, Trash Room	$5,519.06
Exterior - Windows, Glass Replacement	$41,392.98
Interior - Flooring, Carpet, 2nd Floor Lounge Area	$12,702.68
Interior - Flooring, Carpet, Hallways	$137,689.62
Site - Paver Sidewalk Areas	$3,311.44
Sub Total	**$314,308.51**
2025-2026 Fiscal Year	
Equipment - Electrical Repairs	$5,657.04
Equipment - HVAC, Unit Air Handlers	$2,828.52
Equipment - Office & Concierge	$2,262.82
Equipment - Pumps, Gas Pressure Booster	$23,759.57
Equipment - Tanks, Fuel Pumps	$16,971.12
Equipment - Trash Compactor	$20,365.35
Exterior - Cladding, Inspection	$12,445.49
Exterior - Cladding, Major Repairs, Initial	$41,774.42
Exterior - Cladding, Minor Repairs	$22,628.16
Exterior - Doors, Glass	$4,073.07
Exterior - Doors, Main Entrance, Minor Repairs	$2,262.82
Exterior - Doors, Steel	$3,790.22
Exterior - Lighting	$6,109.60
Exterior - Windows, Glass Replacement	$42,427.81
Interior - Flooring, Vinyl, VCT	$15,047.73
Interior - Lighting, Stairwells	$10,182.67
Sub Total	**$232,586.41**
2026-2027 Fiscal Year	
Equipment - HVAC, Ventilation, General	$7,827.93
Exterior - Furnishings, Roof Terrace	$4,638.77
Exterior - Windows, Glass Replacement	$43,488.50

The Sample Condominium

Annual Expenditure Detail

Sorted by Description

Garage - Concrete Repairs	$11,596.93
Garage - Floor, Parking Striping	$2,087.45
Roof - Parapet Wall Caps	$3,479.08
Roof - Skylights, Glass Replacement	$5,798.47
Sub Total	**$78,917.14**

2027-2028 Fiscal Year

Equipment - Building Automation System	$5,943.43
Equipment - HVAC, Unit Air Handlers	$2,971.71
Exterior - Cladding, EIFS Maintenance	$2,377.37
Exterior - Doors, Main Entrance, Minor Repairs	$2,377.37
Exterior - Windows, Glass Replacement	$44,575.72
Garage - Floor Coating, Traffic Lane	$105,697.94
Garage - Lighting	$30,014.32
Sub Total	**$193,957.85**

2028-2029 Fiscal Year

Equipment - Garage Access System%date	$6,092.01
Equipment - HVAC, Chiller Repairs	$97,472.23
Equipment - Office & Concierge	$2,436.81
Equipment - Pumps, Garage Drains	$12,184.03
Exterior - Windows, Glass Replacement	$45,690.11
Roof Area - Terrace, 9th Floor	$48,833.59
Roof Area - Terraces, Penthouse	$8,577.56
Sub Total	**$221,286.33**

2029-2030 Fiscal Year

Equipment - HVAC, Building Ventilation	$3,122.16
Equipment - HVAC, Unit Air Handlers	$3,122.16
Equipment - HVAC, Ventilation, General	$8,429.83
Exterior - Doors, Main Entrance, Minor Repairs	$2,497.73
Exterior - Windows, Glass Replacement	$46,832.36
Roof - Skylights, Glass Replacement	$6,244.31
Site - Paver Sidewalk Areas	$3,746.59
Sub Total	**$73,995.13**

2030-2031 Fiscal Year

Equipment - Access & Security Systems	$25,601.69
Equipment - Electrical Repairs	$6,400.42
Equipment - Elevator Modernization	$448,029.59

Equipment - Garage LED Signs	$3,840.25
Equipment - Garage, Unit Heaters	$8,960.59
Equipment - HVAC, Chiller Replacements	$524,834.66
Equipment - HVAC, Unit Heaters	$11,520.76
Exterior - Awning, Main Entry	$10,880.72
Exterior - Cladding, EIFS, Recoat	$142,652.62
Exterior - Cladding, Inspection	$14,080.93
Exterior - Cladding, Minor Repairs	$25,601.69
Exterior - Doors, Glass	$4,608.30
Exterior - Doors, Steel	$4,288.28
Exterior - Windows, Glass Replacement	$48,003.17
Interior - Doors, Common	$9,600.63
Interior - Doors, Unit	$3,686.64
Interior - Signage Allowance	$6,400.42
Roof Area - 19th Floor Hallway Area	$12,800.85
Roof Area - Adjacent Boiler Room, Northeast	$35,842.37
Roof Area - Opera Corridor	$25,601.69
Sub Total	**$1,373,236.30**

2031-2032 Fiscal Year

Equipment - Domestic Hot Water, Indirect Tanks	$20,993.39
Equipment - Elevator Cab Refurbish	$52,483.47
Equipment - Elevator Machine Room, Minisplit	$7,216.48
Equipment - HVAC, Unit Air Handlers	$3,280.22
Equipment - Office & Concierge	$2,624.17
Equipment - Pumps, Domestic Water Booster	$54,818.98
Equipment - Pumps, Foundation Drain	$13,120.87
Equipment - Trash Containers	$6,035.60
Exterior - Doors, Main Entrance, Minor Repairs	$2,624.17
Exterior - Windows, Glass Replacement	$49,203.25
Garage - Floor, Parking Striping	$2,361.76
Interior - Furnishings, Lobby & 2nd Floor Lounge	$35,295.13
Interior - Lobby Renovation	$26,241.73
Interior - Wall Coverings	$23,837.99
Roof - Parapet Wall Caps	$3,936.26
Roof Area - Adjacent Boiler Room, Southeast	$19,550.09
Sub Total	**$323,623.55**

The Sample Condominium

Annual Expenditure Detail

Sorted by Description

2032-2033 Fiscal Year	
Equipment - Building Automation System	$6,724.44
Equipment - Garage CO Detection	$14,928.27
Equipment - Garage, Ventilation	$9,414.22
Equipment - HVAC, Chiller Repairs	$107,591.11
Equipment - HVAC, Ventilation, General	$9,078.00
Exterior - Cladding, EIFS Maintenance	$2,689.78
Exterior - Windows, Glass Replacement	$50,433.33
Interior - Flooring, Carpet, 2nd Floor Lounge Area	$15,476.98
Interior - Flooring, Carpet, Hallways	$167,761.43
Roof - Skylights, Glass Replacement	$6,724.44
Roof Area - Boiler Room	$22,863.11
Roof Area - Elevator Machine Room	$33,353.24
Roof Area - Generator Room	$12,372.98
Sub Total	**$459,411.33**
2033-2034 Fiscal Year	
Equipment - Garage Overhead Door	$68,925.55
Equipment - HVAC, Unit Air Handlers	$3,446.28
Exterior - Doors, Main Entrance, Minor Repairs	$2,757.02
Exterior - Windows, Glass Replacement	$51,694.16
Garage - Floor Coating, Traffic Lane	$122,577.20
Interior - Flooring, Vinyl, Chilewich	$11,889.66
Sub Total	**$261,289.88**
2034-2035 Fiscal Year	
Equipment - Domestic Hot Water, Mixing Valve	$7,064.87
Equipment - Domestic Hot Water, Pump	$2,825.95
Equipment - HVAC, Building Ventilation	$3,532.43
Equipment - Office & Concierge	$2,825.95
Exterior - Windows, Glass Replacement	$52,986.52
Roof Area - Terrace, Common Area	$59,740.53
Site - Paver Sidewalk Areas	$4,238.92
Sub Total	**$133,215.17**
2035-2036 Fiscal Year	
Equipment - Electrical Repairs	$7,241.49
Equipment - Fire Sprinkler, Main Pump	$47,069.69
Equipment - HVAC Pumps, VFD, Cooling Water	$18,103.73
Equipment - HVAC Pumps, VFD, Heating Water	$18,103.73

Equipment - HVAC, Unit Air Handlers	$3,620.75
Equipment - HVAC, Ventilation, General	$9,776.01
Equipment - Mailboxes	$7,603.57
Exterior - Cladding, Inspection	$15,931.28
Exterior - Cladding, Minor Repairs	$28,965.96
Exterior - Doors, Glass	$5,213.87
Exterior - Doors, Main Entrance	$43,448.95
Exterior - Doors, Main Entrance, Minor Repairs	$2,896.60
Exterior - Doors, Steel	$4,851.80
Exterior - Windows, Commercial & Common	$106,449.92
Exterior - Windows, Glass Replacement	$54,311.18
Interior - Doors, Common	$10,862.24
Interior - Doors, Unit	$4,171.10
Roof - Skylights, Glass Replacement	$7,241.49
Sub Total	**$395,863.34**

2036-2037 Fiscal Year

Equipment - HVAC, Chiller Repairs	$118,760.45
Exterior - Furnishings, Roof Terrace	$5,938.02
Exterior - Windows, Glass Replacement	$55,668.96
Garage - Concrete Repairs	$14,845.06
Garage - Floor, Parking Striping	$2,672.11
Interior - Flooring, Tile, Lobby	$25,978.85
Roof - Parapet Wall Caps	$4,453.52
Sub Total	**$228,316.96**

2037-2038 Fiscal Year

Equipment - Access & Security Systems	$30,432.37
Equipment - Building Automation System	$7,608.09
Equipment - HVAC, PTAC	$13,694.56
Equipment - HVAC, Unit Air Handlers	$3,804.05
Equipment - Office & Concierge	$3,043.24
Exterior - Cladding, EIFS Maintenance	$3,043.24
Exterior - Doors, Main Entrance, Minor Repairs	$3,043.24
Exterior - Windows, Glass Replacement	$57,060.68
Garage - Lighting	$38,420.86
Sub Total	**$160,150.32**

2038-2039 Fiscal Year

Equipment - Fire Sprinkler, Compressor	$3,119.32

Equipment - Generator, Partial Rebuild	$23,394.88
Equipment - HVAC, Ventilation, General	$10,527.70
Exterior - Windows, Glass Replacement	$58,487.20
Roof - Skylights, Glass Replacement	$7,798.29
Sub Total	**$103,327.39**

2039-2040 Fiscal Year

Equipment - Boilers	$143,878.52
Equipment - HVAC, Boiler Room Rebuild	$269,772.22
Equipment - HVAC, Building Ventilation	$3,996.63
Equipment - HVAC, Unit Air Handlers	$3,996.63
Exterior - Doors, Main Entrance, Minor Repairs	$3,197.30
Exterior - Lighting, Front Façade	$19,183.80
Exterior - Windows, Glass Replacement	$59,949.38
Garage - Floor Coating, Traffic Lane	$142,151.97
Site - Paver Sidewalk Areas	$4,795.95
Sub Total	**$650,922.40**

2040-2041 Fiscal Year

Equipment - Electrical Repairs	$8,193.08
Equipment - Elevator, Door Operators	$59,914.37
Equipment - Garage Access System%date	$8,193.08
Equipment - Garage LED Signs	$4,915.85
Equipment - Garage, Ventilation	$11,470.32
Equipment - HVAC, Chiller Repairs	$131,089.32
Equipment - HVAC, Smoke Control	$32,772.33
Equipment - Office & Concierge	$3,277.23
Equipment - Pumps, Garage Drains	$16,386.16
Equipment - Tanks, Fuel Storage	$13,108.93
Exterior - Cladding, Inspection	$18,024.78
Exterior - Cladding, Major Repairs	$80,669.09
Exterior - Cladding, Minor Repairs	$32,772.33
Exterior - Doors, Glass	$5,899.02
Exterior - Doors, Steel	$5,489.37
Exterior - Railings	$35,557.98
Exterior - Windows, Glass Replacement	$61,448.12
Interior - Doors, Common	$12,289.62
Interior - Doors, Unit	$4,719.22
Interior - Flooring, Carpet, 2nd Floor Lounge Area	$18,857.20

The Sample Condominium

Annual Expenditure Detail

Sorted by Description

Interior - Flooring, Carpet, Hallways	$204,401.01
Roof - Access Hatch	$6,554.47
Sub Total	**$776,002.86**
2041-2042 Fiscal Year	
Equipment - HVAC, Unit Air Handlers	$4,198.95
Equipment - HVAC, Ventilation, General	$11,337.18
Exterior - Doors, Main Entrance, Minor Repairs	$3,359.16
Exterior - Windows, Glass Replacement	$62,984.32
Garage - Floor Coating, Parking Stalls	$286,089.90
Garage - Floor, Parking Striping	$3,023.25
Interior - Lighting, 2nd Floor Lounge	$6,844.30
Interior - Lighting, Lobby	$14,528.38
Interior - Lighting, Unit Hallways	$63,068.30
Roof - Parapet Wall Caps	$5,038.75
Roof - Skylights, Glass Replacement	$8,397.91
Sub Total	**$468,870.39**
2042-2043 Fiscal Year	
Equipment - Building Automation System	$8,607.86
Equipment - Fire Sprinkler, Main Pump, Rebuild	$8,607.86
Exterior - Cladding, EIFS Maintenance	$3,443.14
Exterior - Windows, Glass Replacement	$64,558.93
Roof Area - Bay and Projection Areas	$106,737.43
Sub Total	**$191,955.21**
2043-2044 Fiscal Year	
Equipment - Domestic Hot Water, Indirect Tanks	$28,233.77
Equipment - Fire Alarm	$114,699.69
Equipment - Fire Sprinkler, Jockey Pump	$8,823.05
Equipment - HVAC Pumps, Cooling Water	$35,292.21
Equipment - HVAC Pumps, Heating Water	$28,233.77
Equipment - HVAC, Unit Air Handlers	$4,411.53
Equipment - Office & Concierge	$3,529.22
Equipment - Pumps, Domestic Water Booster	$73,725.43
Exterior - Doors, Main Entrance, Minor Repairs	$3,529.22
Exterior - Windows, Glass Replacement	$66,172.90
Sub Total	**$366,650.81**

The Sample Condominium

Annual Expenditure Detail

Sorted by Description

2044-2045 Fiscal Year	
Equipment - Access & Security Systems	$36,174.52
Equipment - Emergency Communication BDA	$24,417.80
Equipment - Garage CO Detection	$20,076.86
Equipment - HVAC, Building Ventilation	$4,521.81
Equipment - HVAC, Chiller Repairs	$144,698.08
Equipment - HVAC, Ventilation, General	$12,208.90
Exterior - Doors, Trash Room	$9,043.63
Exterior - Windows, Glass Replacement	$67,827.22
Roof - Skylights, Glass Replacement	$9,043.63
Site - Paver Sidewalk Areas	$5,426.18
Sub Total	**$333,438.63**
2045-2046 Fiscal Year	
Equipment - Electrical Repairs	$9,269.72
Equipment - HVAC, Unit Air Handlers	$4,634.86
Equipment - Tanks, Fuel Pumps	$27,809.16
Exterior - Cladding, Inspection	$20,393.39
Exterior - Cladding, Minor Repairs	$37,078.88
Exterior - Doors, Glass	$6,674.20
Exterior - Doors, Main Entrance, Minor Repairs	$3,707.89
Exterior - Doors, Steel	$6,210.71
Exterior - Windows, Glass Replacement	$69,522.90
Garage - Floor Coating, Traffic Lane	$164,852.71
Interior - Doors, Common	$13,904.58
Interior - Doors, Unit	$5,339.36
Sub Total	**$369,398.36**
2046-2047 Fiscal Year	
Equipment - Elevator Cab Refurbish	$76,011.71
Equipment - Elevator Machine Room, Minisplit	$10,451.61
Equipment - Office & Concierge	$3,800.59
Equipment - Pumps, Foundation Drain	$19,002.93
Equipment - Trash Containers	$8,741.35
Exterior - Furnishings, Roof Terrace	$7,601.17
Exterior - Windows, Glass Replacement	$71,260.98
Garage - Concrete Repairs	$19,002.93
Garage - Floor, Parking Striping	$3,420.53
Interior - Furnishings, Lobby & 2nd Floor Lounge	$51,117.87

The Sample Condominium

Annual Expenditure Detail

Sorted by Description

Interior - Lobby Renovation	$38,005.85
Interior - Wall Coverings	$34,524.52
Roof - Parapet Wall Caps	$5,700.88
Sub Total	**$348,642.90**
2047-2048 Fiscal Year	
Equipment - Building Automation System	$9,739.00
Equipment - HVAC, Unit Air Handlers	$4,869.50
Equipment - HVAC, Ventilation, General	$13,147.65
Exterior - Cladding, EIFS Maintenance	$3,895.60
Exterior - Doors, Main Entrance, Minor Repairs	$3,895.60
Exterior - Windows, Glass Replacement	$73,042.50
Garage - Lighting	$49,181.95
Roof - Skylights, Glass Replacement	$9,739.00
Sub Total	**$167,510.80**
2048-2049 Fiscal Year	
Equipment - Garage, Ventilation	$13,975.47
Equipment - HVAC, Chiller Repairs	$159,719.60
Exterior - Windows, Glass Replacement	$74,868.56
Interior - Flooring, Carpet, 2nd Floor Lounge Area	$22,975.66
Interior - Flooring, Carpet, Hallways	$249,042.79
Roof Area - Terrace, 9th Floor	$80,019.52
Roof Area - Terraces, Penthouse	$14,055.32
Sub Total	**$614,656.93**
2049-2050 Fiscal Year	
Equipment - Domestic Hot Water, Mixing Valve	$10,232.04
Equipment - Domestic Hot Water, Pump	$4,092.81
Equipment - HVAC, Building Ventilation	$5,116.02
Equipment - HVAC, Unit Air Handlers	$5,116.02
Equipment - Office & Concierge	$4,092.81
Exterior - Doors, Main Entrance, Minor Repairs	$4,092.81
Exterior - Windows, Glass Replacement	$76,740.28
Site - Paver Sidewalk Areas	$6,139.22
Sub Total	**$115,622.02**

The Sample Condominium

Projections

Directed Cash Flow Calculation Method

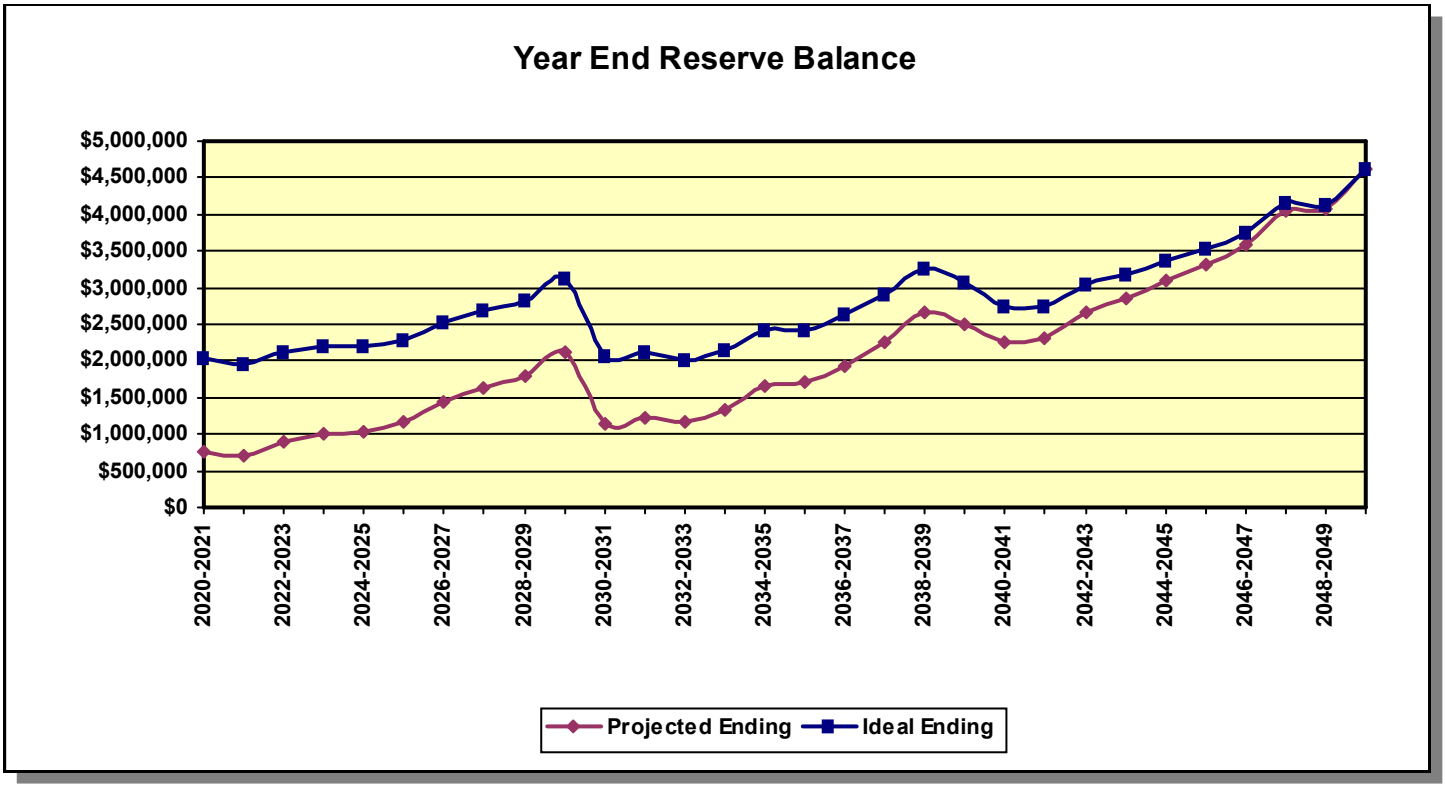
Fiscal Year	Beginning Balance	Member Contribution	Interest Contribution	Expenditures	Ending Balance	Fully Funded Ending Balance	Percent Funded
2020-2021	$535,092	$301,000	$6,574	$85,164	$757,502	$2,046,627	37%
2021-2022	$757,502	$308,525	$5,903	$370,977	$700,952	$1,950,498	36%
2022-2023	$700,952	$316,238	$8,020	$128,702	$896,509	$2,114,407	42%
2023-2024	$896,509	$324,144	$9,318	$211,878	$1,018,092	$2,202,109	46%
2024-2025	$1,018,092	$332,248	$9,573	$314,309	$1,045,605	$2,190,507	48%
2025-2026	$1,045,605	$340,554	$10,838	$232,586	$1,164,410	$2,276,336	51%
2026-2027	$1,164,410	$349,068	$13,930	$78,917	$1,448,490	$2,533,464	57%
2027-2028	$1,448,490	$357,794	$15,865	$193,958	$1,628,192	$2,682,653	61%
2028-2029	$1,628,192	$366,739	$17,616	$221,286	$1,791,260	$2,814,852	64%
2029-2030	$1,791,260	$375,908	$21,135	$73,995	$2,114,307	$3,113,327	68%
2030-2031	$2,114,307	$385,305	$10,262	$1,373,236	$1,136,639	$2,065,788	55%
2031-2032	$1,136,639	$394,938	$11,116	$323,624	$1,219,069	$2,108,299	58%
2032-2033	$1,219,069	$404,812	$10,570	$459,411	$1,175,039	$2,018,186	58%
2033-2034	$1,175,039	$414,932	$12,345	$261,290	$1,341,026	$2,143,541	63%
2034-2035	$1,341,026	$425,305	$15,688	$133,215	$1,648,804	$2,416,015	68%
2035-2036	$1,648,804	$435,938	$16,247	$395,863	$1,705,126	$2,427,036	70%
2036-2037	$1,705,126	$446,836	$18,807	$228,317	$1,942,453	$2,624,433	74%
2037-2038	$1,942,453	$458,007	$22,282	$160,150	$2,262,592	$2,908,177	78%
2038-2039	$2,262,592	$469,457	$26,558	$103,327	$2,655,279	$3,268,685	81%
2039-2040	$2,655,279	$481,194	$24,885	$650,922	$2,510,436	$3,070,005	82%
2040-2041	$2,510,436	$493,224	$21,927	$776,003	$2,249,583	$2,744,474	82%
2041-2042	$2,249,583	$505,554	$22,508	$468,870	$2,308,775	$2,745,485	84%
2042-2043	$2,308,775	$518,193	$26,332	$191,955	$2,661,345	$3,049,559	87%
2043-2044	$2,661,345	$531,148	$28,389	$366,651	$2,854,230	$3,187,753	90%
2044-2045	$2,854,230	$544,427	$30,986	$333,439	$3,096,204	$3,375,692	92%
2045-2046	$3,096,204	$558,037	$33,360	$369,398	$3,318,203	$3,541,871	94%
2046-2047	$3,318,203	$571,988	$36,147	$348,643	$3,577,695	$3,745,912	96%
2047-2048	$3,577,695	$586,288	$41,150	$167,511	$4,037,622	$4,158,374	97%
2048-2049	$4,037,622	$600,945	$41,368	$614,657	$4,065,278	$4,121,464	99%
2049-2050	$4,065,278	$615,969	$47,337	$115,622	$4,612,961	$4,623,189	100%

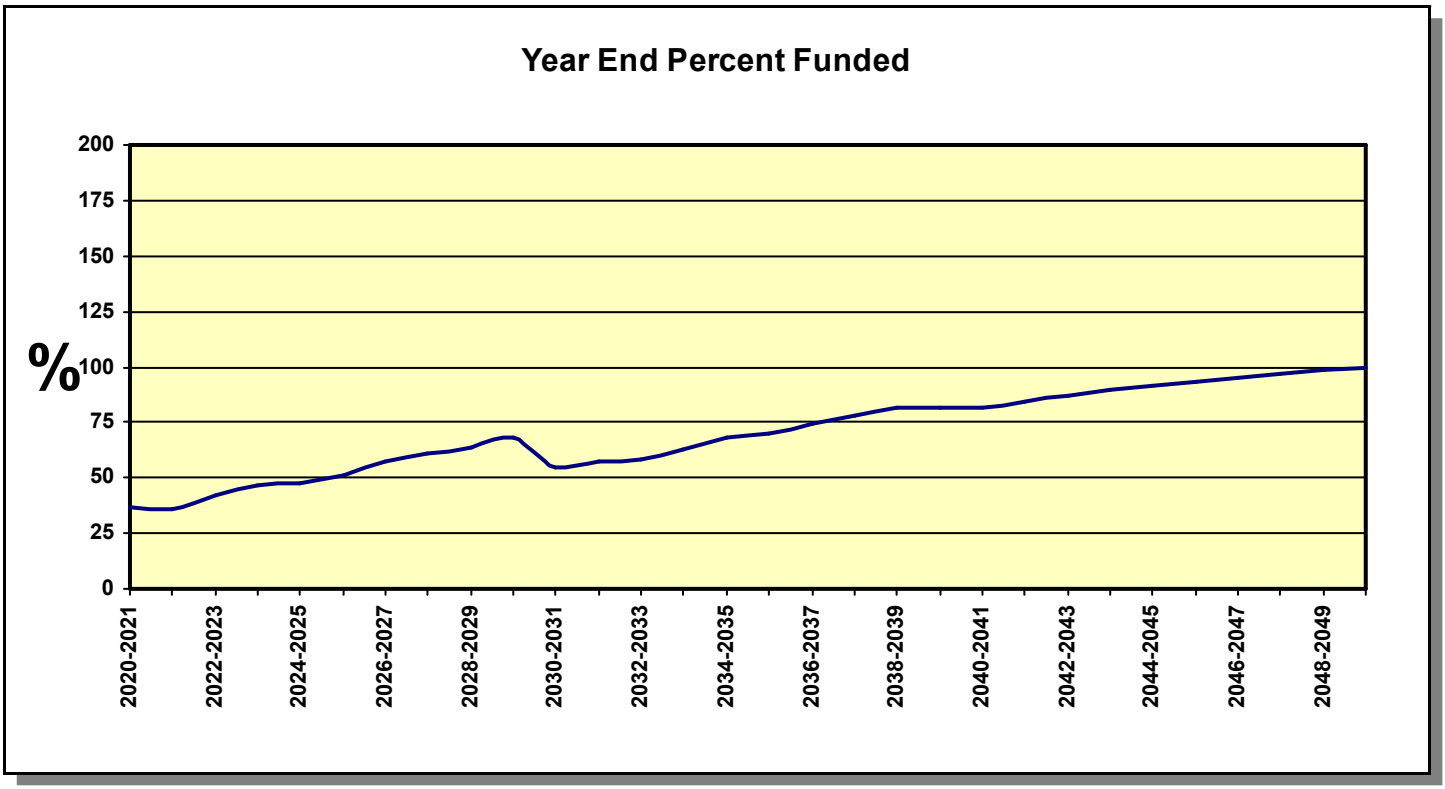
NOTE: In some cases, the projected Ending Balance may exceed the Fully Funded Ending Balance in years following high Expenditures. This is a result of the provision for contingency in this analysis, which in these projections is never expended. The contingency is continually adjusted according to need and any excess is redistributed among all components included.

The Sample Condominium

Projection Charts

Directed Cash Flow Calculation Method

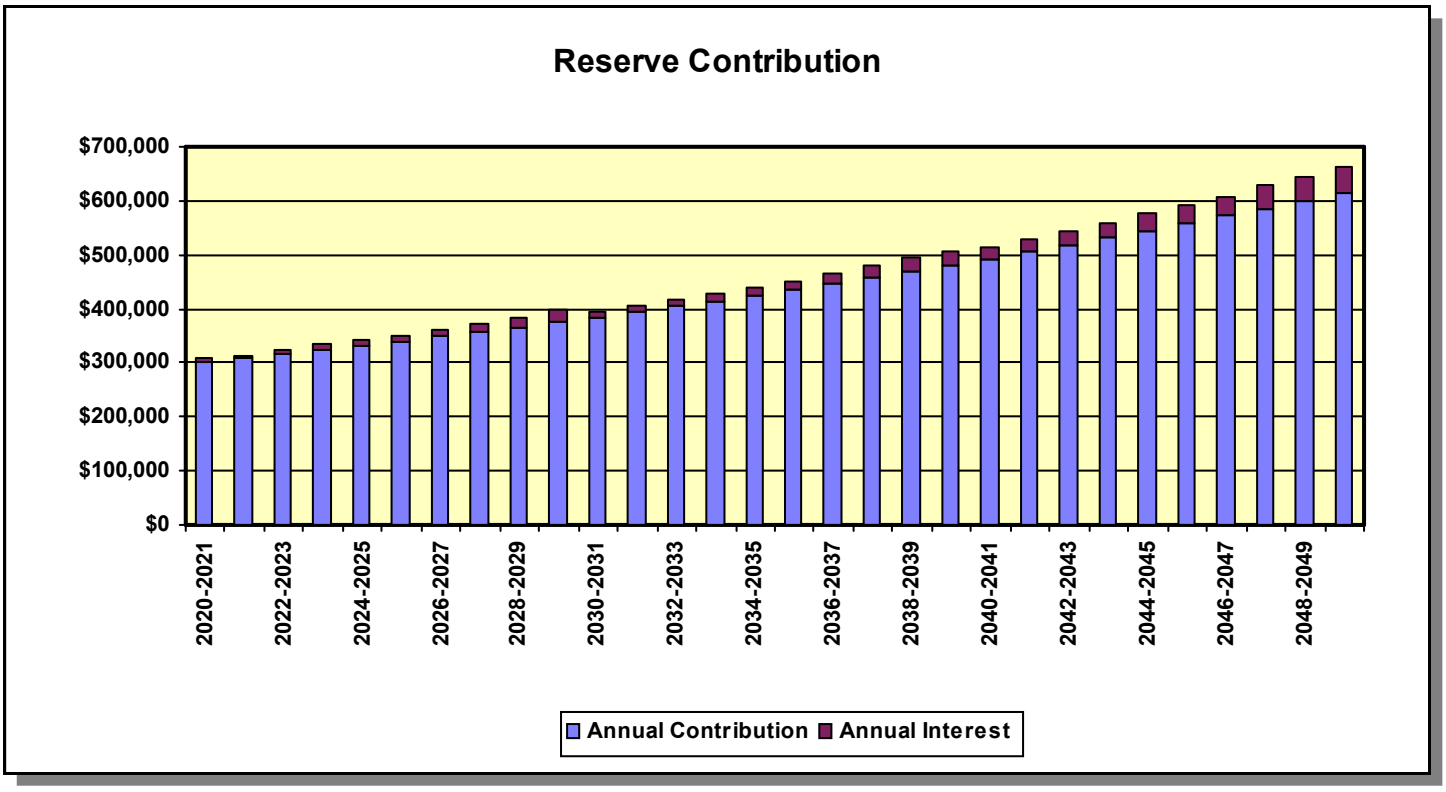


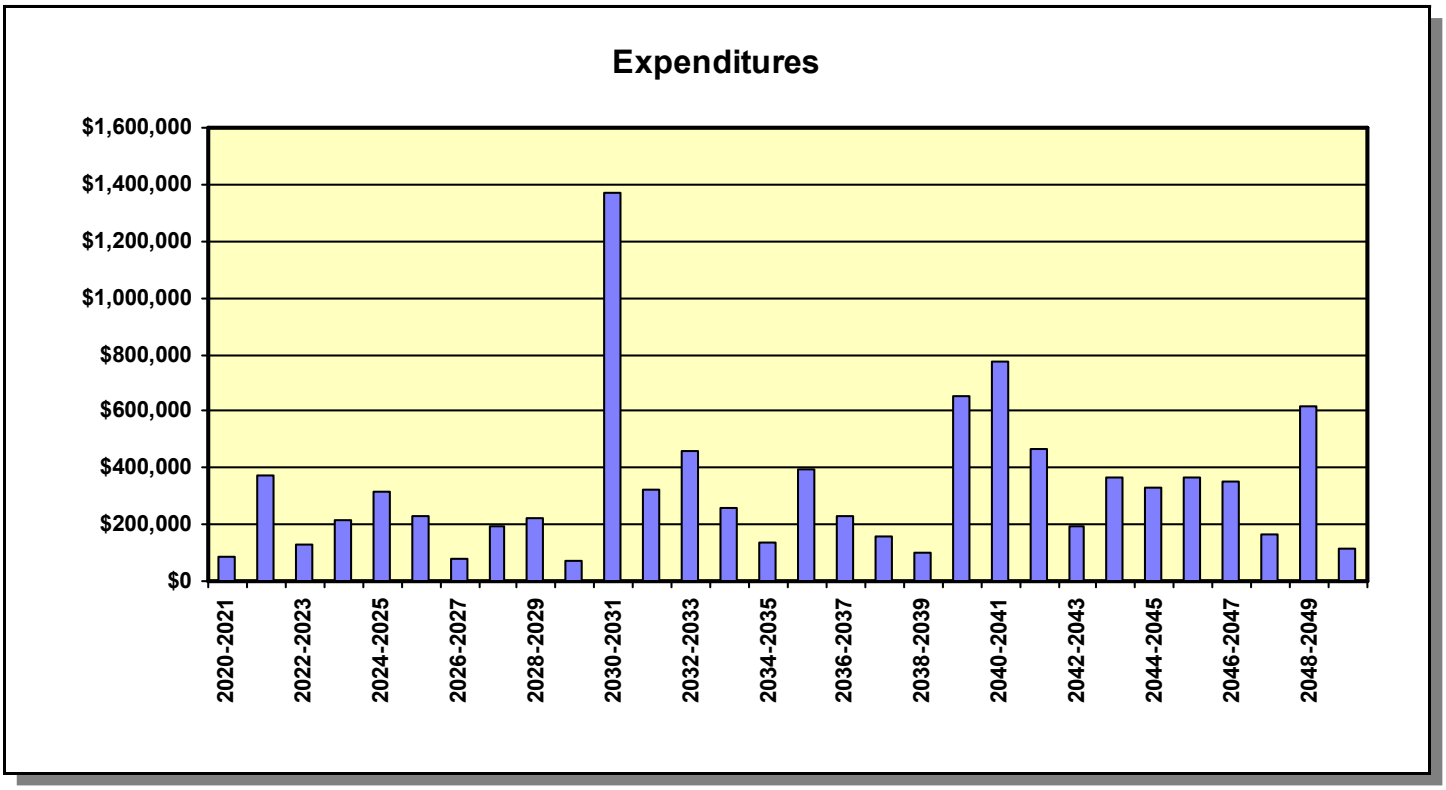


The Sample Condominium

Projection Charts

Directed Cash Flow Calculation Method





The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Site - Paver Sidewalk Areas

Category	005 Site	Quantity	1 repair
Photo Date	December 2019	Unit Cost	$3,000.000
		% of Replacement	100.00%
		Current Cost	$3,000.00
Placed In Service	06/19	Future Cost	$3,311.44
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$44.13
Replacement Year	2024-2025	Monthly Interest Contribution	$0.30
		Total Monthly Contribution	$44.42

Comments:

Component covers allowance for paver and concrete walkway repairs at front and rear of building. Walkways were in good condition at site visit. Allowance should be adjusted in future reserve study updates as walkways age.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Roof - Access Hatch

Category	010 Roof	Quantity	1 total
Photo Date	December 2019	Unit Cost	$4,000.000
		% of Replacement	100.00%
		Current Cost	$4,000.00
Placed In Service	06/00	Future Cost	$6,554.47
Useful Life	40		
		Assigned Reserves at FYB	$0.00
Remaining Life	20	Monthly Member Contribution	$13.08
Replacement Year	2040-2041	Monthly Interest Contribution	$0.09
		Total Monthly Contribution	$13.17

Comments:

Component covers replacement of roof access hatch. Bilco Type E hatch with aluminum cover measures approximately 36" x 36" and is in good condition. Pricing for new hatch includes safety rail system and Bilco E-50TB 36X36 Thermally Broken Roof Hatch.

Bilco sales representative: Pace Representatives, Ryan Cosmini 860-680-2319
Mr. Cosmini stated that, with minor replacements of operating hardware, hatchways will have a very long life.

1	Bilco E-50TB 36X36 Hatch	@	$1,500.00	=	$1,500.00
1	safety railing system	@	$1,500.00	=	$1,500.00
1	installation	@	$1,000.00	=	$1,000.00
			TOTAL	=	$4,000.00

Roof - General Life Extension Measures

		One Time Replacement	
Category	010 Roof	Quantity	7,450 sq. ft.
Photo Date	December 2019	Unit Cost	$7.500
		% of Replacement	100.00%
		Current Cost	$55,875.00
Placed In Service	06/19	Future Cost	$57,271.88
Useful Life	2		
		Assigned Reserves at FYB	$27,937.50
Remaining Life	1	Monthly Member Contribution	$1,632.45
Replacement Year	2021-2022	Monthly Interest Contribution	$34.53
		Total Monthly Contribution	$1,666.97

Comments:

Component covers allowance for one-time life extension measures for original EPDM (ethylene propylene diene terpolymer) membrane roofs. Original roofs were in good to fair condition. Numerous prior patches noted on some roof areas. No current issues with roofs, per management. An average cost of $7.50 per sq. ft. is used for life extension measures. Cost should be updated after Knollmeyer recommendations are received. Additional roof extension measure components can be added in future reserve study updates as other roofs get closer to the end of their useful lives.

The remaining life of full replacement components has been extended due to the anticipation that roof extension measures will be performed.

There are two major options for roof life extension. All general pricing is for large roofs with good access. This is not the case for high rise buildings. The costs can be used as a relative comparison only. Reinforcement of all membrane seams can extend the roof life up to 15 years with consistent followup inspections. Cost is about $3.00 per sq. ft. A roof life extension can also be obtained by applying a full restoration and coating system with a 10-20 year warranty. Cost for this option would be about $7.00 per sq. ft. Coatings are only effective if current roof is not leaking.

Roof installation & maintenance contractor: Knollmeyer Building Corp.
Per client discussion with Knollmeyer, a budget price of $20 per sq. ft is being used for roof replacement. Knollmeyer is expected to inspect all roofs and make recommendations about roof life extension methods once corona virus pandemic

has eased.

In the absence of the annual inspection by roofing contractor Knollmeyer, the replacement dates of original roofs have been staggered to reflect roof extension measures that will be taken. The exact nature of these recommendations is unknown at the time of this report. Knollmeyer should carefully examine each roof section, including probing of seams. Recommendations will likely include seam reinforcement and/or a roof coating.

Roof - Ladder Replacement

One Time Replacement

Category	010 Roof	Quantity	1 ladder
Photo Date	December 2019	Unit Cost	$3,500.000
		% of Replacement	100.00%
		Current Cost	$3,500.00
Placed In Service	06/00	Future Cost	$0.00
Useful Life	15		
Adjustment	+5	Assigned Reserves at FYB	$3,500.00
Remaining Life	0	Monthly Member Contribution	$0.00
Replacement Year	2020-2021	Monthly Interest Contribution	$0.00
		Total Monthly Contribution	$0.00

Comments:

Component covers replacement of current failing pressure-treated wood ladder to access chillers from upper roof area. Wood ladder is decayed and splitting. Safety is poor. Client has a $3500 proposal from Mike's Welding for permanent steel ladder.

Roof - Parapet Wall Caps

Category	010 Roof	Quantity	1 total
Photo Date	December 2019	Unit Cost	$3,000.000
		% of Replacement	100.00%
		Current Cost	$3,000.00
Placed In Service	06/16	Future Cost	$3,075.00
Useful Life	5		
		Assigned Reserves at FYB	$2,400.00
Remaining Life	1	Monthly Member Contribution	$36.46
Replacement Year	2021-2022	Monthly Interest Contribution	$2.26
		Total Monthly Contribution	$38.72

Comments:

Component covers galvanized steel standing seam parapet wall caps. Unpainted galvanized steel appeared to be in good condition at site visit. No leaking issues reported. However, areas should be checked for brown staining as described below. White spatter pattern should be checked also. Useful life of 40+ years assumes that brown staining will not reduce service life. Replacement of parapet wall caps is currently unfunded.

Component covers detailed inspection and minor repairs on a five year basis. Repair details can be found on the American Galvanizers Association website. As infrastructure ages, allowance should be adjusted in future reserve study updates.

Much of the galvanized steel on the parapet walls exhibits a brown color. Per the American Galvanizers Association: "A hot-dip galvanized product may develop a surface defect known as brown staining, which is created when the iron in the zinc-iron alloy layers oxidizes. The oxidizing of the free iron in the intermetallic layers results in the discoloration of the surrounding zinc coating, changing the surface appearance from the well-known grey appearance of galvanized steel to a brown color."

Per American Galvanizers Association Senior Corrosion Engineer Alana Hochstein, it is recommended that brown stain areas be checked for coating thickness:
- A coating thickness (Dry film thickness or DFT) gauge can be used to identify whether you have brown stain in these areas:

- Coating thickness gauge reading of ~0: This is rust and there is no galvanized coating in this area where the measurement was taken.
- Positive thickness gauge reading (or similar thickness to surrounding parts that are not stained): This is likely brown staining. The base steel is not rusting, and the corrosion performance of the galvanized steel is not affected.

Per Ms. Hochstein, thickness of galvanized coating should be monitored over time. Local companies that specialize in paint and coating inspections can measure the galvanized coating thickness. Time to first major maintenance (5% of surface area is corroded) is described on their website. In a temperate marine environment, minimum time should be 80+ years if galvanized steel is properly installed. Maintenance will involve painting galvanized steel regularly after this major maintenance. The galvanized coating will typically allow paint to remain serviceable about 50% longer than paint applied to bare steel.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Roof - Skylights, Glass Replacement

Category	010 Roof	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	06/20	Future Cost	$5,384.45
Useful Life	3		
		Assigned Reserves at FYB	$0.00
Remaining Life	3	Monthly Member Contribution	$97.40
Replacement Year	2023-2024	Monthly Interest Contribution	$0.66
		Total Monthly Contribution	$98.06

Comments:

Component covers allowance for periodic replacement of (2) penthouse and (3) opera corridor skylight glass panels. Skylights appeared to be in fair condition at site visit. Some glass panels have been replaced in past on opera corridor due to impacts. Netting has been installed to minimize damage. No issues with skylight frames reported. As infrastructure ages, allowance should be adjusted in future reserve study updates.

Contractor: Melrose Glass, Bob McConaghy, 781-632-2802
Glass varies in size. If access to opera corridor roof can be through a unit, cost for average glass replacement will be $4500-$5000.

Frames are unfunded currently, but can be added by client if desired. As frames age they should be added to reserve study in future updates.

Approximate overall unit sizes:
Penthouse skylights: 6'3" x 11'7"; 6' x 8'
Opera skylights: (3) 13' x 6'

Roof - Terrace Pergola, Unfunded

Category	010 Roof	Quantity	1 total
Photo Date	December 2019	Unit Cost	$3,000.000
		% of Replacement	0.00%
		Current Cost	$0.00
Placed In Service	06/00	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
		Total Monthly Contribution	$0.00

Comments:

Component covers galvanized steel pergola panels above common roof terrace. Unpainted galvanized steel appeared to be in good condition at site visit. Useful life of 40+ years assumes any brown staining will not reduce service life. Replacement of pergola panels is currently unfunded and listed only for inventory purposes. Pergola panels should be inspected in conjunction with parapet wall caps.

See additional comments about galvanized steel under "Roof - Parapet Wall Caps".

Roof Area - 19th Floor Hallway Area

Category	010 Roof	Quantity	500 sq. ft.
Photo Date	December 2019	Unit Cost	$20.000
		% of Replacement	100.00%
		Current Cost	$10,000.00
Placed In Service	06/00	Future Cost	$12,800.85
Useful Life	20		
Adjustment	+10	Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$61.24
Replacement Year	2030-2031	Monthly Interest Contribution	$0.41
		Total Monthly Contribution	$61.65

Comments:

Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof over 19th floor hallway area. Roof is original to construction.

Roof was in fair condition. Numerous prior patches noted. No current issues with roof, per management. The remaining life of this component has been extended due to lack of current issues and anticipated life extension measures listed as separate component.

Roof installation & maintenance contractor: Knollmeyer Building Corp.
Per client discussion with Knollmeyer, a budget price of $20 per sq. ft is being used for roof replacement. Knollmeyer is expected to inspect all roofs and make recommendations about roof life extension methods once corona virus pandemic has eased.

There are several options for roof replacement. All pricing is for large roofs with good access. Pricing for high rises will be higher. The costs can be used as a relative comparison only. If insulation under membrane is dry, then an overlay coverboard and new membane could be installed for $6 - $8 per sq. ft. An entire re-roof with removal of existing materials, structural deck inspection and new insulation/membrane would be be about $13 - $15 per sq. ft. Pricing listed for comparison purposes on large roofs and will vary with roof geometry and site access complexity. Pricing for complete replacement option is currently listed.

Related items currently unfunded:
Roof anchor points

In the absence of the annual inspection by roofing contractor Knollmeyer, the replacement dates of original roofs have been staggered to reflect anticipated roof extension measures that will be taken. The exact nature of these recommendations is unknown at time of this report. Knollmeyer should carefully examine each roof section, including probing of seams. Recommendations will likely include seam reinforcement and/or a roof coating. A separate roof extension component is included to fund these measures.

In order to ensure a high quality installation, the client may wish to obtain the services of an independent roofing consultant to work with the client and the roofing contractor providing installation. Consultants are available for the preparation of installation specifications and, if desired, to work with the contractor during the installation process. Fees for these services vary based on the size of the project and detail required by the client, and have not been included in the cost used for this component. Should the client desire, a provision for a consultant can be incorporated into this analysis.

The roof should be monitored/visually inspected twice a year: fall and early spring. Any issues/damage should be addressed immediately to avoid further damage to the roofing system and/or damage to the interior of the building. If the roofing system becomes damaged and/or leaking issues occur, the Remaining Life of the roof should be adjusted accordingly.

Roof Area - Adjacent Boiler Room, Northeast

Category	010 Roof	Quantity	1,400 sq. ft.
Photo Date	December 2019	Unit Cost	$20.000
		% of Replacement	100.00%
		Current Cost	$28,000.00
Placed In Service	06/00	Future Cost	$35,842.37
Useful Life	20		
Adjustment	+10	Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$171.47
Replacement Year	2030-2031	Monthly Interest Contribution	$1.16
		Total Monthly Contribution	$172.63

Comments:

Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof adjacent to boiler room at northeast corner. Roof is original to construction.

Roof was in fair condition. Numerous prior patches noted. No current issues with roof, per management. The remaining life of this component has been extended due to lack of current issues and anticipated life extension measures listed as separate component.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area".

Roof Area - Adjacent Boiler Room, Southeast

Category	010 Roof	Quantity	745 sq. ft.
Photo Date	December 2019	Unit Cost	$20.000
		% of Replacement	100.00%
		Current Cost	$14,900.00
Placed In Service	06/11	Future Cost	$19,550.09
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$83.50
Replacement Year	2031-2032	Monthly Interest Contribution	$0.57
		Total Monthly Contribution	$84.07

Comments:

Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof adjacent to boiler room at southeast corner. Placed-in-service date per client.

Roof was in good condition. No major issues noted. No current issues with roof, per management.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area".

The Sample Condominium

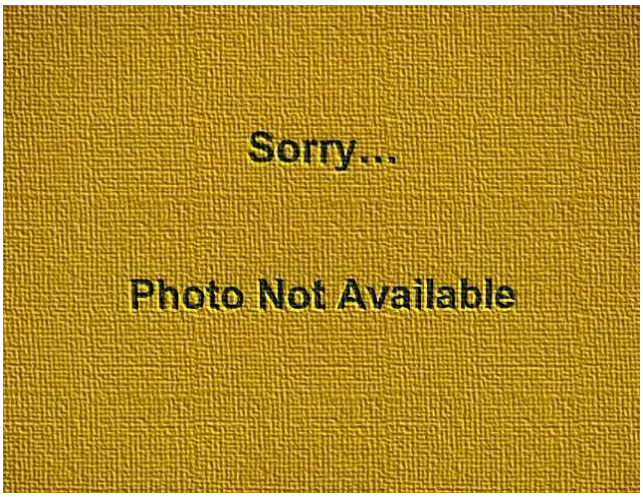
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Roof Area - Bay and Projection Areas

Category	010 Roof	Quantity	1 total
Photo Date	December 2019	Unit Cost	$62,000.000
		% of Replacement	100.00%
		Current Cost	$62,000.00
Placed In Service	06/00	Future Cost	$65,138.75
Useful Life	20		
Adjustment	+2	Assigned Reserves at FYB	$56,363.64
Remaining Life	2	Monthly Member Contribution	$207.38
Replacement Year	2022-2023	Monthly Interest Contribution	$48.70
		Total Monthly Contribution	$256.08

Comments:



Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roofs over bay window and other projections from the building. Roofs are original to construction.

Total areas:
- bay window projections (7) about 320 sq. ft.
- rectangular projections (3) about 135 sq. ft.

Roofs could not be examined. No current issues with roofs, per management. The remaining life of this component has been extended due to its condition and lack of issues at our most recent site visit. Due to difficulty of access, it is recommended that these roofs be replaced in near future rather than undergoing a life extension.

Roof installation & maintenance contractor: Knollmeyer Building Corp.
Per client discussion with Knollmeyer, a budget price of $5000 - $9000 per per projection should be used for roof replacement in these areas.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area".

7	bay projections	@	$5,000.00	=	$35,000.00

3	rectangular projections	@	$9,000.00	=	$27,000.00
			TOTAL	=	$62,000.00

Roof Area - Boiler Room

Category	010 Roof	Quantity	850 sq. ft.
Photo Date	December 2019	Unit Cost	$20.000
		% of Replacement	100.00%
		Current Cost	$17,000.00
Placed In Service	06/00	Future Cost	$22,863.11
Useful Life	20		
Adjustment	+12	Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$87.91
Replacement Year	2032-2033	Monthly Interest Contribution	$0.59
		Total Monthly Contribution	$88.50

Comments:

Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof over boiler room (and under chillers). Roof is original to construction.

Roof was in good condition. Several patches noted. No current issues with roof, per management. The remaining life of this component has been extended due to lack of current issues and anticipated life extension measures listed as separate component.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area".

Roof Area - Elevator Machine Room

Category	010 Roof	Quantity	1,240 sq. ft.
Photo Date	December 2019	Unit Cost	$20.000
		% of Replacement	100.00%
		Current Cost	$24,800.00
Placed In Service	06/00	Future Cost	$33,353.24
Useful Life	20		
Adjustment	+12	Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$128.25
Replacement Year	2032-2033	Monthly Interest Contribution	$0.87
		Total Monthly Contribution	$129.12

Comments:

Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof over elevator machine room. Roof is original to construction.

Roof was in good condition. No major issues noted. No current issues with roof, per management. The remaining life of this component has been extended due to lack of current issues and anticipated life extension measures listed as separate component.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area".

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Roof Area - Generator Room

Category	010 Roof	Quantity	460 sq. ft.
Photo Date	December 2019	Unit Cost	$20.000
		% of Replacement	100.00%
		Current Cost	$9,200.00
Placed In Service	06/00	Future Cost	$12,372.98
Useful Life	20		
Adjustment	+12	Assigned Reserves at FYB	$0.00
Remaining Life	12	Monthly Member Contribution	$47.57
Replacement Year	2032-2033	Monthly Interest Contribution	$0.32
		Total Monthly Contribution	$47.90

Comments:

Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof over generator room. Roof is original to construction.

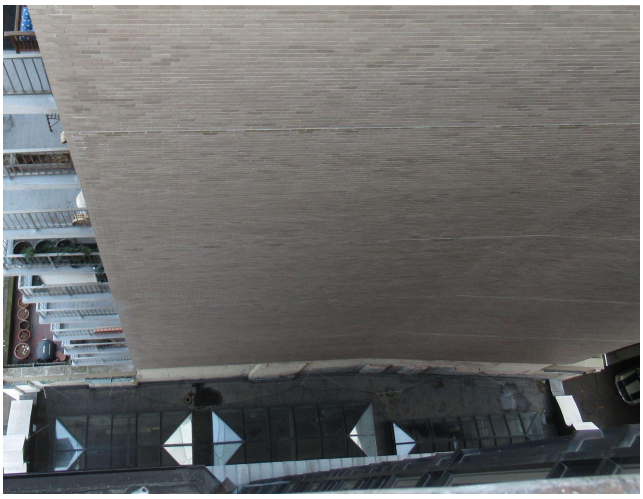
Roof was in good condition. No major issues noted. No current issues with roof, per management. The remaining life of this component has been extended due to lack of current issues and anticipated life extension measures listed as separate component.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area".

Roof Area - Opera Corridor

Category	010 Roof	Quantity	1,000 sq. ft.
Photo Date	December 2019	Unit Cost	$20.000
		% of Replacement	100.00%
		Current Cost	$20,000.00
Placed In Service	06/00	Future Cost	$25,601.69
Useful Life	20		
Adjustment	+10	Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$122.48
Replacement Year	2030-2031	Monthly Interest Contribution	$0.83
		Total Monthly Contribution	$123.31

Comments:



Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof over opera corridor. Roof is original to construction.

Roof could not be closely examined, but appeared to be in fair condition. No major issues noted. No current issues with roof, per management. The remaining life of this component has been extended due to lack of current issues and anticipated life extension measures listed as separate component.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area".

Roof Area - Terrace, 9th Floor

Category	010 Roof	Quantity	1 total
Photo Date	December 2019	Unit Cost	$40,080.000
		% of Replacement	100.00%
		Current Cost	$40,080.00
Placed In Service	06/00	Future Cost	$48,833.59
Useful Life	20		
Adjustment	+8	Assigned Reserves at FYB	$0.00
Remaining Life	8	Monthly Member Contribution	$302.75
Replacement Year	2028-2029	Monthly Interest Contribution	$2.05
		Total Monthly Contribution	$304.81

Comments:

Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof under 9th floor roof terrace. Roof is original to construction.

Roof was in good to fair condition. Numerous prior patches noted. No current issues with roof, per management. The remaining life of this component has been extended due to lack of current issues and anticipated life extension measures listed as separate component.

Construction materials in terrace areas appear to be: terrace concrete pavers, pedestal system, membrane, insulation boards, and roof deck.

High strength/low asborbance pavers are typically used on roof terraces. Hanover Architectural Products is one manufacturer. These pavers usually have a long life and are simply removed for re-roofing and then reinstalled. This is a labor intensive process because pedestals all need to be adjusted to have the pavers be level on the sloped roof below. Cost to remove and reinstall current pavers is about $10 per sq. ft., per J.D. Rivet Roofing, Springfield, MA. $2 per sq. ft. added for some minor material replacements.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area".

1,470	sq. ft. roof	@	$20.00	=	$29,400.00
890	sq. ft. terrace pavers remove & reset	@	$12.00	=	$10,680.00
			TOTAL	=	$40,080.00

Roof Area - Terrace, Common Area

Category	010 Roof	Quantity	1 total
Photo Date	December 2019	Unit Cost	$42,280.000
		% of Replacement	100.00%
		Current Cost	$42,280.00
Placed In Service	06/14	Future Cost	$59,740.53
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	14	Monthly Member Contribution	$189.89
Replacement Year	2034-2035	Monthly Interest Contribution	$1.29
		Total Monthly Contribution	$191.17

Comments:

Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof under common roof terrace and extending up to 6" curb parallel to front elevation (1490 sq. ft.). Placed-in-service date per client.

Roof was in good condition. No major issues noted. No current issues with roof, per management.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area" and terrace roofing comments under "Roof Area - Terrace, 9th Floor".

1,490	sq. ft. roof	@	$20.00	=	$29,800.00
1,040	sq. ft. terrace pavers remove & reset	@	$12.00	=	$12,480.00
			TOTAL	=	$42,280.00

The Sample Condominium

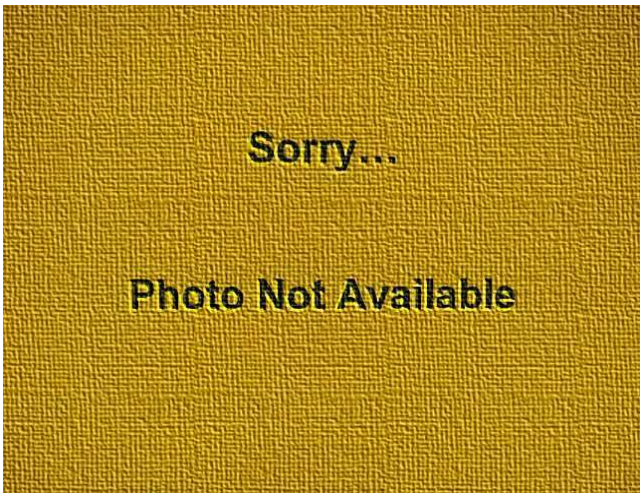
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Roof Area - Terraces, Penthouse

Category	010 Roof	Quantity	1 total
Photo Date	December 2019	Unit Cost	$7,040.000
		% of Replacement	100.00%
		Current Cost	$7,040.00
Placed In Service	06/00	Future Cost	$8,577.56
Useful Life	20		
Adjustment	+8	Assigned Reserves at FYB	$0.00
Remaining Life	8	Monthly Member Contribution	$53.18
Replacement Year	2028-2029	Monthly Interest Contribution	$0.36
		Total Monthly Contribution	$53.54

Comments:



Component covers replacement of EPDM (ethylene propylene diene terpolymer) membrane roof under two penthouse roof terraces. Roof is original to construction.

Roofs were not accessible. No current issues with roof, per management. The remaining life of this component has been extended due to lack of current issues and anticipated life extension measures listed as separate component.

See additional general roofing comments under "Roof Area - 19th Floor Hallway Area" and terrace roofing comments under "Roof Area - Terrace, 9th Floor".

220	sq. ft. roof	@	$20.00	=	$4,400.00
220	sq. ft. terrace pavers remove & reset	@	$12.00	=	$2,640.00
			TOTAL	=	$7,040.00

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Awning, Main Entry

Category	020 Building Exterior	Quantity	1 awning
Photo Date	December 2019	Unit Cost	$8,500.000
		% of Replacement	100.00%
		Current Cost	$8,500.00
Placed In Service	06/00	Future Cost	$10,880.72
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$52.05
Replacement Year	2030-2031	Monthly Interest Contribution	$0.35
		Total Monthly Contribution	$52.40

Comments:

Component covers replacement of awning over main entry doors. Awning was in good condition at site visit.

Exterior - Cladding, Aluminum, Unfunded

Category	020 Building Exterior	Quantity	23,780 sq. ft.
Photo Date	December 2019	Unit Cost	$0.000
		% of Replacement	0.00%
		Current Cost	$0.00
Placed In Service	06/00	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
		Total Monthly Contribution	$0.00

Comments:

This component covers replacement of prefinished aluminum bay window and wall structures (frames & infill panels). Aluminum structure was in generally good condition at site visit. Per client, aluminum has been cleaned periodically.

One on-going issue relates to short sections of aluminum C-channel covers that are prone to popping off. This is mainly an aesthetic issue as these C-channels complete the grid appearance of the aluminum wall panel areas. Window cleaning may exacerbate the problem, although the window cleaners are asked to reinstall the loose pieces that have accumulated since the last window cleaning.

Component for complete replacement is currently unfunded due to long (75 year) life expectancy. Funding can be added if desired by client.

Exterior - Cladding, EIFS Maintenance

Category	020 Building Exterior	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$2,000.000
		% of Replacement	100.00%
		Current Cost	$2,000.00
Placed In Service	06/17	Future Cost	$2,101.25
Useful Life	5		
		Assigned Reserves at FYB	$1,200.00
Remaining Life	2	Monthly Member Contribution	$24.15
Replacement Year	2022-2023	Monthly Interest Contribution	$1.17
		Total Monthly Contribution	$25.32

Comments:

Component covers estimated periodic inspection and maintenance allowance of Exterior Insulation and Finish Systems (EIFS) siding. EIFS appears to be face-sealed. Sealants should be inspected and repaired regularly. Building manager currently performs most maintenance in-house.

It is recommended that walls also be periodically tested for moisture that would indicate internal damage could be occuring.

As infrastructure ages, allowance should be adjusted in future reserve study updates.

EIFS re-coat is covered by separate component. Cleaning and minor repairs should be covered by operations or reserve contingency.

Exterior - Cladding, EIFS, Recoat

Category	020 Building Exterior	Quantity	1 re-coat
Photo Date	December 2019	Unit Cost	$111,440.000
		% of Replacement	100.00%
		Current Cost	$111,440.00
Placed In Service	06/00	Future Cost	$142,652.62
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$682.44
Replacement Year	2030-2031	Monthly Interest Contribution	$4.64
		Total Monthly Contribution	$687.08

Comments:

Component covers estimated re-coating allowance for Exterior Insulation and Finish Systems (EIFS) siding. System is also referred to as synthetic stucco. EIFS has been subject of many moisture-related failures when applied to wood framed buildings. Steel framing at is also subject to moisture damage. Installation methods have transitioned from face-sealed approaches to current moisture draining methods. System appears to be face-sealed. The wall structural configuration and EIFS system manufacturer is unknown. It is recommended that walls be periodically tested for moisture that would indicate internal damage could be occuring.

EIFS textured acrylic finish appeared to be in generally good condition, but walls could not be closely examined in all areas. Finish can be cleaned and does not typically need to be painted, per Dryvit (one of several large EIFS manufacturers) documentation examined. No leaking issues reported. Flaking and prior minor repairs were observed in localized areas. Cost for re-coating of outer textured acrylic finish layer assumes that there are no internal wall issues. EIFS should be closely monitored. Timing of repair/re-coat should be adjusted based on observations.

Periodic inspections of sealants are covered by another component. Cleaning and minor repairs should be covered by operations or reserve contingency.

Complete replacement of EIFS is currently unfunded. Quantity from prior reserve study.

The Sample Condominium

Component Detail

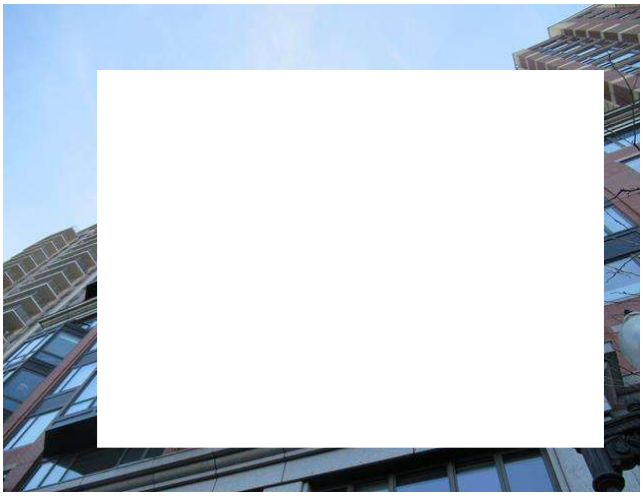
Directed Cash Flow Calculation Method; Sorted by Category

10,144	sq. ft. EIFS area	@	$10.00	=	$101,440.00
1	scaffolding & aerial lift allowance	@	$10,000.00	=	$10,000.00
			TOTAL	=	$111,440.00

Exterior - Cladding, Inspection

Category	020 Building Exterior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$11,000.000
		% of Replacement	100.00%
		Current Cost	$11,000.00
Placed In Service	06/15	Future Cost	$12,445.49
Useful Life	5		
		Assigned Reserves at FYB	$11,000.00
Remaining Life	0	Monthly Member Contribution	$130.31
Replacement Year	2020-2021	Monthly Interest Contribution	$0.88
		Total Monthly Contribution	$131.19

Comments:



This component covers inspections of building exterior to comply with City of Boston Façade Ordinance 9-9.12. Inspections are required every 5 years. Cost per similar building in Boston.

Repairs are covered by separate component.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Cladding, Major Repairs

Category	020 Building Exterior	Quantity	16,410 sq. ft.
Photo Date	December 2019	Unit Cost	$30.000
		% of Replacement	10.00%
		Current Cost	$49,230.00
Placed In Service	06/25	Future Cost	$80,669.09
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	20	Monthly Member Contribution	$160.95
Replacement Year	2040-2041	Monthly Interest Contribution	$1.09
		Total Monthly Contribution	$162.04

Comments:

This component covers the recommended inspection and major masonry repairs after initial 25 year inspection and repair. Initial inspections should guide the frequency and extent of major and minor repairs. A percentage of brick is expected to be repaired every 15 years. Component includes any repairs required for cast stone cornices.

See additional notes under "Exterior - Brick Major Repairs, Initial".

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Cladding, Major Repairs, Initial

		One Time Replacement	
Category	020 Building Exterior	Quantity	16,410 sq. ft.
Photo Date	December 2019	Unit Cost	$30.000
		% of Replacement	7.50%
		Current Cost	$36,922.50
Placed In Service	06/00	Future Cost	$41,774.42
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$437.39
Replacement Year	2025-2026	Monthly Interest Contribution	$2.97
		Total Monthly Contribution	$440.36

Comments:

This component covers the initial recommended major masonry repairs after approximately 25 years. A percentage of brick and sealants are expected to be repaired at that time. Component includes any repairs required for cast stone cornices.

Repointing entire building would be approximately $30 per sq. ft. including staging. Total cost to repoint building at $30/sq. ft. is about $492,000. It is anticipated that percentage of brick will need to be addressed at 25 years. As infrastructure ages, percentage allowance should be adjusted in future reserve study updates.

Masons typically recommend annual maintenance component and major inspection/repair every 15-25 years. Minor repairs are covered by separate component.

Over time, some repointing will be required, but not likely the entire building unless mortar fails due to poor initial installation or incorrect mortar type. Brick repointing represents a significant potential liability to a client. As the extent and nature of this liability are largely indeterminable, full budgeting for this component has been excluded at this time.

In the past, our firm has coordinated the evaluation of exteriors by licensed professionals. Typically, these firms can provide inspections, testing, calculations and documentation of brick. The client may wish to pursue this type of evaluation.

Exterior - Cladding, Minor Repairs

Category	020 Building Exterior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$20,000.000
		% of Replacement	100.00%
		Current Cost	$20,000.00
Placed In Service	06/15	Future Cost	$22,628.16
Useful Life	5		
		Assigned Reserves at FYB	$20,000.00
Remaining Life	0	Monthly Member Contribution	$236.92
Replacement Year	2020-2021	Monthly Interest Contribution	$1.61
		Total Monthly Contribution	$238.53

Comments:

This component covers sealants and minor masonry repairs. Repairs typically include repointing damaged areas and sealing penetrations. Replacing sealants to maintain water resistance is included. Cleaning and sealing brick surface may also be required. Major repairs are covered by separate component.

As infrastructure ages, allowance should be adjusted in future reserve study updates.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Doors, Glass

Category	020 Building Exterior	Quantity	12 doors
Photo Date	December 2019	Unit Cost	$3,000.000
		% of Replacement	10.00%
		Current Cost	$3,600.00
Placed In Service	06/20	Future Cost	$4,073.07
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$42.65
Replacement Year	2025-2026	Monthly Interest Contribution	$0.29
		Total Monthly Contribution	$42.93

Comments:

Component represents exterior aluminum frame full view commercial doors to opera connector, commercial units, (3) unit terraces, and common roof terrace. Doors were in good condition during site visits with no issues reported by client. Doors will have significantly different usage and will not all need to be replaced concurrently. Allowance set up to periodically replace doors. As infrastructure ages, allowance should be adjusted in future reserve study updates.

Doors will need replacement of wear items (hinges, handles, etc.) to achieve useful life.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Doors, Main Entrance

Category	020 Building Exterior	Quantity	2 doors
Photo Date	December 2019	Unit Cost	$15,000.000
		% of Replacement	100.00%
		Current Cost	$30,000.00
Placed In Service	06/00	Future Cost	$43,448.95
Useful Life	35		
		Assigned Reserves at FYB	$0.00
Remaining Life	15	Monthly Member Contribution	$126.58
Replacement Year	2035-2036	Monthly Interest Contribution	$0.86
		Total Monthly Contribution	$127.44

Comments:

Component represents exterior and vestibule double counter-balanced bronze main entry doors. Doors were in good condition during site visit and no problems were reported by client. Cost per prior study.

Doors will need periodic adjustments and replacement of wear items (hinges, handles, etc.) to achieve useful life.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Doors, Main Entrance, Minor Repairs

Category	020 Building Exterior	Quantity	2 doors
Photo Date	December 2019	Unit Cost	$1,000.000
		% of Replacement	100.00%
		Current Cost	$2,000.00
Placed In Service	06/19	Future Cost	$2,050.00
Useful Life	2		
		Assigned Reserves at FYB	$1,000.00
Remaining Life	1	Monthly Member Contribution	$58.43
Replacement Year	2021-2022	Monthly Interest Contribution	$1.23
		Total Monthly Contribution	$59.67

Comments:

Component allowance for periodic minor repairs and adjustments to exterior and vestibule double counter-balanced bronze main entry doors. Doors were in good condition during site visit and no problems were reported by client.

Exterior - Doors, Steel

Category	020 Building Exterior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$33,500.000
		% of Replacement	10.00%
		Current Cost	$3,350.00
Placed In Service	06/20	Future Cost	$3,790.22
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$39.68
Replacement Year	2025-2026	Monthly Interest Contribution	$0.27
		Total Monthly Contribution	$39.95

Comments:

Component represents exterior flush steel doors for building egress on Mason Street and roof access. Doors were in good condition during site visits and no problems were reported by client. Quantities per prior reserve study. Component covers periodic allowance for replacement of doors. As infrastructure ages, allowance should be adjusted in future reserve study updates.

Doors for trash room are listed separately due to high use and impacts with dumpsters moving through.

Doors will need periodic painting and replacement of wear items (hinges, handles, etc.) to achieve useful life. Consistent painting is critical to prevent corrosion. Several of these doors receive low use.

14	single doors	@	$1,500.00	=	$21,000.00
5	double doors	@	$2,500.00	=	$12,500.00
			TOTAL	=	$33,500.00

Exterior - Doors, Trash Room

Category	020 Building Exterior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	06/00	Future Cost	$5,519.06
Useful Life	20		
Adjustment	+4	Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$73.54
Replacement Year	2024-2025	Monthly Interest Contribution	$0.50
		Total Monthly Contribution	$74.04

Comments:

Component covers high use double steel 72" x 84" trash room doors. Doors were in fair condition during site visit. Due to high use with dumpsters moving through, doors will likely have reduced service life. Remaining life extended to reflect better than average trash door wear at association.

Doors will need periodic painting and replacement of wear items (hinges, handles, etc.) to achieve useful life. Consistent painting is critical to prevent corrosion.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Furnishings, Roof Terrace

Category	020 Building Exterior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$4,000.000
		% of Replacement	100.00%
		Current Cost	$4,000.00
Placed In Service	06/16	Future Cost	$4,638.77
Useful Life	10		
		Assigned Reserves at FYB	$0.00
Remaining Life	6	Monthly Member Contribution	$39.75
Replacement Year	2026-2027	Monthly Interest Contribution	$0.27
		Total Monthly Contribution	$40.02

Comments:

Component covers cast aluminum roof terrace furnishings. Furnishings were stored and not easily accessible at site visit. Allowance estimated. The actual date this component was placed into service is not available. For budgeting purposes, this date has been estimated based on its condition at our most recent site visit.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Lighting

Category	020 Building Exterior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$5,400.000
		% of Replacement	100.00%
		Current Cost	$5,400.00
Placed In Service	06/00	Future Cost	$6,109.60
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$63.97
Replacement Year	2025-2026	Monthly Interest Contribution	$0.43
		Total Monthly Contribution	$64.40

Comments:

Component covers wall and ceiling mounted exterior lighting. Lighting was in good condition at site visit. Front façade exterior cannon uplighting is listed as separate component.

8	wall sconces, front	@	$500.00	=	$4,000.00
3	wall lights, rear	@	$200.00	=	$600.00
4	ceiling lights, rear	@	$200.00	=	$800.00
			TOTAL	=	$5,400.00

Exterior - Lighting, Front Façade

Category	020 Building Exterior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$12,000.000
		% of Replacement	100.00%
		Current Cost	$12,000.00
Placed In Service	06/19	Future Cost	$19,183.80
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	19	Monthly Member Contribution	$41.03
Replacement Year	2039-2040	Monthly Interest Contribution	$0.28
		Total Monthly Contribution	$41.31

Comments:

Component covers front façade exterior cannon uplighting. Lighting was replaced with new LED fixtures in 2019. Number of lights was reduced from 10 to 8 due to cost of changing bulbs. Cost, per client, was $16,200 including lifts to access lights. Due to numerous complications during recent installation, it is anticipated that cost to replace lights will be lower in future.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Railings

Category	020 Building Exterior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$21,700.000
		% of Replacement	100.00%
		Current Cost	$21,700.00
Placed In Service	06/00	Future Cost	$35,557.98
Useful Life	40		
		Assigned Reserves at FYB	$0.00
Remaining Life	20	Monthly Member Contribution	$70.94
Replacement Year	2040-2041	Monthly Interest Contribution	$0.49
		Total Monthly Contribution	$71.43

Comments:

Component covers black steel railings located on two penthouse roof terraces and on 4 projecting bay window roofs on front elevation. Railings appeared to be in good condition as observed from ground at site visit. Per client, railings are in good condition. It is assumed that railings are painted galvanized steel.

Also included is galvanized railing along rear of 9th floor roof terrace. Front galvanized railing was recently replaced by unit owner with stainless steel cable railing. Unit owner will be remain responsible for this front railing. Rear galvanized railing was in good condition.

24	ln. ft. roof terrace railing, 9th floor	@	$200.00	=	$4,800.00
32	ln. ft. penthouse terrace railings	@	$200.00	=	$6,400.00
70	ln. ft. decorative 1/2 height railings	@	$150.00	=	$10,500.00
			TOTAL	=	$21,700.00

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Exterior - Windows, Commercial & Common

Category	020 Building Exterior	Quantity	2,100 sq. ft.
Photo Date	December 2019	Unit Cost	$35.000
		% of Replacement	100.00%
		Current Cost	$73,500.00
Placed In Service	06/00	Future Cost	$106,449.92
Useful Life	35		
		Assigned Reserves at FYB	$0.00
Remaining Life	15	Monthly Member Contribution	$310.12
Replacement Year	2035-2036	Monthly Interest Contribution	$2.11
		Total Monthly Contribution	$312.23

Comments:

Component represents exterior commercial aluminum-framed common store front windows in lobby, second floor common area, commercial units, and common roof terrace. Windows were in good condition during site visit and no problems were reported by client. Quantity per prior reserve study.

Exterior - Windows, Frames

Category	020 Building Exterior	Quantity	1 frames
Photo Date	December 2019	Unit Cost	$0.000
		% of Replacement	0.00%
		Current Cost	$0.00
Placed In Service	06/00	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
		Total Monthly Contribution	$0.00

Comments:

Component covers exterior residential aluminum window frames. Window frames were in good condition during site visit and no problems were reported by client.

Component is currently unfunded due to long expected life of window frames. Funding for component can be added in future reserve study updates as infrastructure ages.

Exterior - Windows, Glass Replacement

Category	020 Building Exterior	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$37,500.000
		% of Replacement	100.00%
		Current Cost	$37,500.00
Placed In Service	06/20	Future Cost	$38,437.50
Useful Life	1		
		Assigned Reserves at FYB	$0.00
Remaining Life	1	Monthly Member Contribution	$2,162.07
Replacement Year	2021-2022	Monthly Interest Contribution	$14.68
		Total Monthly Contribution	$2,176.75

Comments:

Component covers replacement of insulated glass within existing window frames. Window glass units are experiencing periodic seal failures resulting in condensation between the glass panes, per client. Premature failures are potentially the result of transportation damage before windows were originally installed. Annual cost for replacements is about $35-40,000, per client, for approximately 28 window glass units. Average cost is about $1350 per glass unit. To date, approximatelly 120 glass units have been replaced. This is about 10% of the overall total of 1073 glass units in the building.

Allowance should be adjusted in future reserve study updates.

Garage - Concrete Repairs

Category	025 Parking Garage	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$10,000.000
		% of Replacement	100.00%
		Current Cost	$10,000.00
Placed In Service	06/16	Future Cost	$11,596.93
Useful Life	10		
		Assigned Reserves at FYB	$0.00
Remaining Life	6	Monthly Member Contribution	$99.38
Replacement Year	2026-2027	Monthly Interest Contribution	$0.68
		Total Monthly Contribution	$100.06

Comments:

Component covers periodic repairs of reinforced concrete walls and floors starting in 2026. As infrastructure ages, allowance should be adjusted in future reserve study updates.

Full replacement of concrete floor slabs is unfunded.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Garage - Floor Coating, Parking Stalls

Category	025 Parking Garage	Quantity	18,926 sq. ft.
Photo Date	December 2019	Unit Cost	$9.000
		% of Replacement	100.00%
		Current Cost	$170,334.00
Placed In Service	06/00	Future Cost	$174,592.35
Useful Life	20		
Adjustment	+1	Assigned Reserves at FYB	$162,222.86
Remaining Life	1	Monthly Member Contribution	$593.69
Replacement Year	2021-2022	Monthly Interest Contribution	$140.15
		Total Monthly Contribution	$733.84

Comments:

Component covers floor coating on parking stall areas on all levels of garage. These areas receive much wear than traffic lane. Elastomeric membrane is original. Quantity per prior reserve study.

Installation contractor: Knollmeyer Building Corp.
Shawn Vetere, Sales Representative, 339-440-6079
Mr. Vetere provided a ballpark quotations for two options
1. Complete replacement of coatings after removal of current coating
2. Partial removal of current coating in failed areas with complete recoating of all areas
- Both options include crack repair allowance
The options can be finalized once the current corona virus shutdown ends and Tremco (coating material supplier) representatives can examine the current coating and make specific recommendations. Funding for complete coating replacement option 1 is currently included.

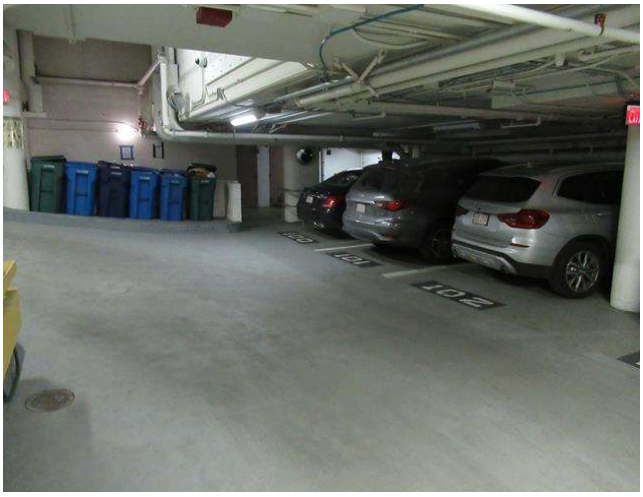
Tremco warranty for the coatings is 5 years with expected used life in the 7-10 year range depending on traffic volume. A light pressure washing of coatings every 6 months is recommended by Tremco for maximum coating life.

The parking stall areas receive much less wear and are in fair condition after about 20 years. Current component is set up with 20 year useful life of parking stall coating based on experience. The remaining life of this component has been extended in order to schedule this replacement to be made in conjunction with travel lane floor coating.

Garage - Floor Coating, Traffic Lane

Category	025 Parking Garage	Quantity	9,880 sq. ft.
Photo Date	December 2019	Unit Cost	$9.000
		% of Replacement	100.00%
		Current Cost	$88,920.00
Placed In Service	06/15	Future Cost	$91,143.00
Useful Life	6		
		Assigned Reserves at FYB	$74,100.00
Remaining Life	1	Monthly Member Contribution	$912.02
Replacement Year	2021-2022	Monthly Interest Contribution	$68.37
		Total Monthly Contribution	$980.39

Comments:



Component covers floor coating on traffic lane of parking garage from entrance down to lowest level. Elastomeric membrane re-applied in 2015. Quantity per prior reserve study.

Installation contractor: Knollmeyer Building Corp.
Shawn Vetere, Sales Representative, 339-440-6079
See additional comments under "Garage - Floor Coating, Parking Stalls".

Traffic lane areas receive much more wear than parking stalls. Traffic lane is in fair condition after about 5 years. Current component is set up with 6 year useful life for travel lane coating based on experience.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Garage - Floor, Parking Striping

Category	025 Parking Garage	Quantity	1 total
Photo Date	December 2019	Unit Cost	$1,800.000
		% of Replacement	100.00%
		Current Cost	$1,800.00
Placed In Service	06/16	Future Cost	$1,845.00
Useful Life	5		
		Assigned Reserves at FYB	$1,440.00
Remaining Life	1	Monthly Member Contribution	$21.87
Replacement Year	2021-2022	Monthly Interest Contribution	$1.36
		Total Monthly Contribution	$23.23

Comments:

Component covers re-painting parking stall numbers and lines.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Garage - Lighting

Category	025 Parking Garage	Quantity	1 total
Photo Date	December 2019	Unit Cost	$25,250.000
		% of Replacement	100.00%
		Current Cost	$25,250.00
Placed In Service	06/17	Future Cost	$30,014.32
Useful Life	10		
		Assigned Reserves at FYB	$0.00
Remaining Life	7	Monthly Member Contribution	$216.53
Replacement Year	2027-2028	Monthly Interest Contribution	$1.47
		Total Monthly Contribution	$218.00

Comments:

Component covers garage lighting. Lighting was in good condition at site visit. Quantity and cost of ceiling mounted induction fixtures per prior reserve study. Induction lights have a useful life of up to 100,000 hours. This is over 11 years at 24 hours per day. Additional allowance added for exit lights and miscellaneous lights.

35	induction ceiling lights	@	$650.00	=	$22,750.00
1	misc. allowance	@	$2,500.00	=	$2,500.00
			TOTAL	=	$25,250.00

Interior - Doors, Common

Category	030 Building Interior	Quantity	100 doors
Photo Date	December 2019	Unit Cost	$1,500.000
		% of Replacement	5.00%
		Current Cost	$7,500.00
Placed In Service	06/25	Future Cost	$9,600.63
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$45.93
Replacement Year	2030-2031	Monthly Interest Contribution	$0.32
		Total Monthly Contribution	$46.24

Comments:

Component covers interior common steel doors in stairwells, hallways, closets, and mechanical rooms. Doors were in good condition at site visit. Door life will vary with usage. It is unlikely that all interior doors will be replaced at one time. There are approximately 100 doors in the building.

Allowance and interval for repairs and replacements should be adjusted over time to reflect aging of building. Current allowance is set at 5% every 5 years starting in 2030. With proper maintenance/repairs to hinges, handles, etc. doors may exceed expected useful life.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Doors, Unit

Category	030 Building Interior	Quantity	64 doors
Photo Date	December 2019	Unit Cost	$1,500.000
		% of Replacement	3.00%
		Current Cost	$2,880.00
Placed In Service	06/25	Future Cost	$3,686.64
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$17.64
Replacement Year	2030-2031	Monthly Interest Contribution	$0.12
		Total Monthly Contribution	$17.75

Comments:

Component covers unit steel doors to common hallways. Doors were in good condition at site visit. Door life will vary with usage. It is unlikely that all doors will be replaced at one time. Allowance to replace percentage of doors beginning in 2030.

Allowance and interval for repairs and replacements should be adjusted over time to reflect aging of building. With proper maintenance/repairs to hinges, handles, etc. doors may exceed expected useful life.

Interior - Flooring, Carpet, 2nd Floor Lounge Area

Category	030 Building Interior	Quantity	548 sq. ft.
Photo Date	December 2019	Unit Cost	$21.000
		% of Replacement	100.00%
		Current Cost	$11,508.00
Placed In Service	06/16	Future Cost	$12,702.68
Useful Life	8		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$169.26
Replacement Year	2024-2025	Monthly Interest Contribution	$1.15
		Total Monthly Contribution	$170.42

Comments:

Component covers carpet flooring in 2nd floor common lounge area. Luxury-grade wool carpeting was installed in 2016. Carpet is difficult to clean because water cannot be used. Only spot cleaning is practical. Quantity per prior reserve study.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Flooring, Carpet, Hallways

Category	030 Building Interior	Quantity	5,940 sq. ft.
Photo Date	December 2019	Unit Cost	$21.000
		% of Replacement	100.00%
		Current Cost	$124,740.00
Placed In Service	06/16	Future Cost	$137,689.62
Useful Life	8		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$1,834.73
Replacement Year	2024-2025	Monthly Interest Contribution	$12.46
		Total Monthly Contribution	$1,847.19

Comments:

Component covers carpet flooring in unit and common hallways. Luxury-grade wool carpeting was installed in 2016. Carpet is difficult to clean because water cannot be used. Only spot cleaning is practical. Quantity per prior reserve study.

Interior - Flooring, Tile, Lobby

Category	030 Building Interior	Quantity	700 sq. ft.
Photo Date	December 2019	Unit Cost	$25.000
		% of Replacement	100.00%
		Current Cost	$17,500.00
Placed In Service	06/16	Future Cost	$25,978.85
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	16	Monthly Member Contribution	$69.68
Replacement Year	2036-2037	Monthly Interest Contribution	$0.48
		Total Monthly Contribution	$70.16

Comments:

Component covers ceramic tile in main lobby areas. Tile was in good condition. No loose or cracked tiles were observed. Cost for removal of existing tile is difficult to estimate. Cost of materials chosen to replace the current tile can also vary widely. Quantity per prior reserve study. Useful life set at 20 years because the tile will likely be replaced for aesthetic reasons rather than wear.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Flooring, Vinyl, Chilewich

Category	030 Building Interior	Quantity	750 sq. ft.
Photo Date	December 2019	Unit Cost	$11.500
		% of Replacement	100.00%
		Current Cost	$8,625.00
Placed In Service	06/16	Future Cost	$11,889.66
Useful Life	17		
		Assigned Reserves at FYB	$0.00
Remaining Life	13	Monthly Member Contribution	$41.44
Replacement Year	2033-2034	Monthly Interest Contribution	$0.28
		Total Monthly Contribution	$41.72

Comments:

Component covers vinyl Chilewich type tiles in parking garage elevator lobbies and 19th floor hallway. Chilewich was in good condition. Quantities include 15% waste factor.

Per Lisa Walters of Green Source Solutions 617-799-1800, installed cost is about $11.50 per sq. ft. and useful life 15-20 years.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Flooring, Vinyl, VCT

Category	030 Building Interior	Quantity	1,900 sq. ft.
Photo Date	December 2019	Unit Cost	$7.000
		% of Replacement	100.00%
		Current Cost	$13,300.00
Placed In Service	06/00	Future Cost	$15,047.73
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$157.55
Replacement Year	2025-2026	Monthly Interest Contribution	$1.07
		Total Monthly Contribution	$158.62

Comments:

Component covers vinyl composition tiles (VCT) in trash rooms, stairwell vestibules, and rear hallway on first floor. VCT was in good to fair condition. Quantities include 15% waste factor.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Furnishings, Lobby & 2nd Floor Lounge

Category	030 Building Interior	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$26,900.000
		% of Replacement	100.00%
		Current Cost	$26,900.00
Placed In Service	06/16	Future Cost	$35,295.13
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$150.75
Replacement Year	2031-2032	Monthly Interest Contribution	$1.03
		Total Monthly Contribution	$151.78

Comments:

Component covers allowance for replacement of furnishings in second floor lounge area and lobby. Furnishings were in very good condition at site visit. Replacement furnishings may vary widely in price based on selections. No data available for 2016 renovation.

1	conference table	@	$1,000.00	=	$1,000.00
6	conference chairs	@	$250.00	=	$1,500.00
1	L-sofa	@	$3,000.00	=	$3,000.00
5	upholstered chairs	@	$500.00	=	$2,500.00
3	misc. tables	@	$300.00	=	$900.00
1	round sofa	@	$5,000.00	=	$5,000.00
2	planters	@	$250.00	=	$500.00
1	concierge desk	@	$7,500.00	=	$7,500.00
1	design consulting	@	$5,000.00	=	$5,000.00
			TOTAL	=	$26,900.00

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Lighting, 2nd Floor Lounge

Category	030 Building Interior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$4,075.000
		% of Replacement	100.00%
		Current Cost	$4,075.00
Placed In Service	06/16	Future Cost	$6,844.30
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	21	Monthly Member Contribution	$12.77
Replacement Year	2041-2042	Monthly Interest Contribution	$0.09
		Total Monthly Contribution	$12.86

Comments:

Component covers 2nd floor common lounge area lighting. Lighting was in good condition at site visit.

15	recessed lights w/glass	@	$200.00	=	$3,000.00
4	small recessed lights	@	$200.00	=	$800.00
1	hanging light	@	$150.00	=	$150.00
1	exit light	@	$125.00	=	$125.00
			TOTAL	=	$4,075.00

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Lighting, Lobby

Category	030 Building Interior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$8,650.000
		% of Replacement	100.00%
		Current Cost	$8,650.00
Placed In Service	06/16	Future Cost	$14,528.38
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	21	Monthly Member Contribution	$27.11
Replacement Year	2041-2042	Monthly Interest Contribution	$0.18
		Total Monthly Contribution	$27.29

Comments:

Component covers interior lobby area lighting. Lighting was in good condition at site visit.

1	large chandelier	@	$5,000.00	=	$5,000.00
14	recessed lights w/glass	@	$200.00	=	$2,800.00
3	small recessed lights	@	$200.00	=	$600.00
2	exit lights	@	$125.00	=	$250.00
			TOTAL	=	$8,650.00

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Lighting, Stairwells

Category	030 Building Interior	Quantity	100 wall lights
Photo Date	December 2019	Unit Cost	$90.000
		% of Replacement	100.00%
		Current Cost	$9,000.00
Placed In Service	06/00	Future Cost	$10,182.67
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$106.61
Replacement Year	2025-2026	Monthly Interest Contribution	$0.72
		Total Monthly Contribution	$107.33

Comments:

Component covers stairwell and trash room lighting in building. Lighting was in good condition at site visit. Dimming system and emergency backup not included.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Lighting, Unit Hallways

Category	030 Building Interior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$37,550.000
		% of Replacement	100.00%
		Current Cost	$37,550.00
Placed In Service	06/16	Future Cost	$63,068.30
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	21	Monthly Member Contribution	$117.68
Replacement Year	2041-2042	Monthly Interest Contribution	$0.80
		Total Monthly Contribution	$118.48

Comments:

Component covers interior unit hallway and elevator lobby lighting on all floors. Lighting was in good condition at site visit.

68	wall sconce	@	$175.00	=	$11,900.00
24	recessed lights w/glass	@	$200.00	=	$4,800.00
34	small recessed lights	@	$200.00	=	$6,800.00
34	hanging light	@	$200.00	=	$6,800.00
58	exit light	@	$125.00	=	$7,250.00
			TOTAL	=	$37,550.00

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Lobby Renovation

Category	030 Building Interior	Quantity	1 renovation
Photo Date	December 2019	Unit Cost	$20,000.000
		% of Replacement	100.00%
		Current Cost	$20,000.00
Placed In Service	06/16	Future Cost	$26,241.73
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$112.08
Replacement Year	2031-2032	Monthly Interest Contribution	$0.77
		Total Monthly Contribution	$112.85

Comments:

Component covers renovation of main lobby and adjoining 2nd floor lounge. Spaces were renovated in 2016 and in good condition at site visit. Flooring, furnishings, and lighting are covered by separate components. No cost details available from 2016 renovation.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Opera Corridor, Unfunded

Category	030 Building Interior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$0.000
		% of Replacement	0.00%
		Current Cost	$0.00
Placed In Service	06/00	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
		Total Monthly Contribution	$0.00

Comments:

Component covers interior components of opera corridor. Finishes are durable and in good condition. Low-use area. Component is currently unfunded and listed for inventory purposes only. Funding can be added by client if desired.

The Sample Condominium

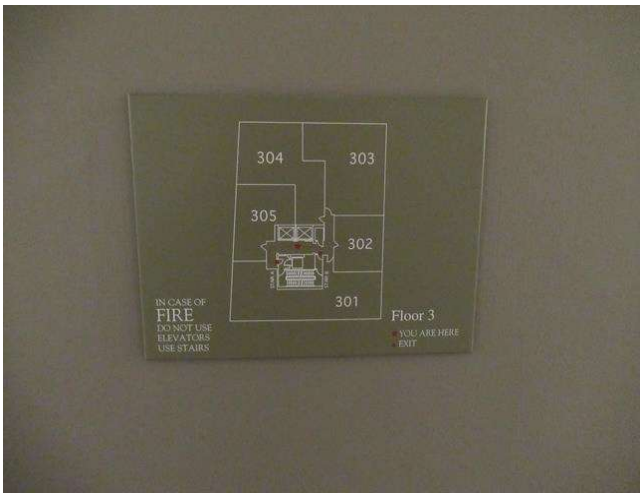
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Signage Allowance

Category	030 Building Interior	Quantity	1 total
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	06/00	Future Cost	$6,400.42
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$30.62
Replacement Year	2030-2031	Monthly Interest Contribution	$0.21
		Total Monthly Contribution	$30.83

Comments:



Component covers allowance for general signage throughout association.

The Sample Condominium

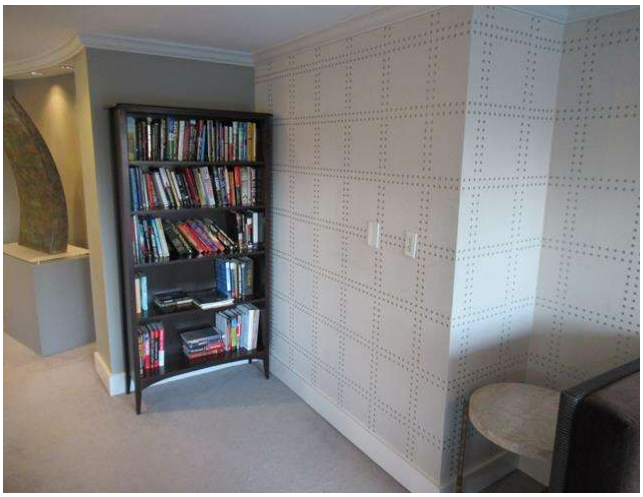
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Interior - Wall Coverings

Category	030 Building Interior	Quantity	1 renovation
Photo Date	December 2019	Unit Cost	$18,168.000
		% of Replacement	100.00%
		Current Cost	$18,168.00
Placed In Service	06/16	Future Cost	$23,837.99
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$101.82
Replacement Year	2031-2032	Monthly Interest Contribution	$0.69
		Total Monthly Contribution	$102.51

Comments:



Component covers wallpaper/wall coverings in 2nd floor common area and elevator lobbies. Wall coverings were in good condition at site visit. Cost of wall coverings can vary widely based on selections. No data available for 2016 renovation.

1,064	sq. ft. elevator lobbies	@	$12.00	=	$12,768.00
450	sq. ft. 2nd floor common area	@	$12.00	=	$5,400.00
			TOTAL	=	$18,168.00

Equipment - Access & Security Systems

Category	090 Equipment	Quantity	1 system upgrade
Photo Date	December 2019	Unit Cost	$20,000.000
		% of Replacement	100.00%
		Current Cost	$20,000.00
Placed In Service	06/16	Future Cost	$21,537.81
Useful Life	7		
		Assigned Reserves at FYB	$11,428.57
Remaining Life	3	Monthly Member Contribution	$175.85
Replacement Year	2023-2024	Monthly Interest Contribution	$10.78
		Total Monthly Contribution	$186.63

Comments:

Component covers periodic upgrade of access, security, & surveillance systems. Systems are serviced by a single vendor and were upgraded in 2016. System uses Cat-5 wiring, per client. Specific information not available. Allowance should be adjusted based on association experience and needs in future reserve study updates.

Access system:
Aiphone IS-IPDV video intercom access system for building main lobby, rear entrance, and (4) garage elevator lobby entrances. No issues reported. Minor repairs should be funded from operating budget. Cost is about $1500 per unit.

Surveillance:
Replacement is about $1200 per camera installed for higher quality IP cameras. Useful life of cameras is about 5-7 years for outdoor and 10+ for indoor with new IP cameras that use CAT5 wiring with fewer connections. Most survaillance systems are replaced to improve picture quality and other performance measures rather than failure of the system.

Keyfob system:
No issues reported with Locknetics system. Replacement system is estimated at $25,000.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Boilers

Category	090 Equipment	Quantity	1 total
Photo Date	December 2019	Unit Cost	$90,000.000
		% of Replacement	100.00%
		Current Cost	$90,000.00
Placed In Service	06/19	Future Cost	$143,878.52
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	19	Monthly Member Contribution	$307.72
Replacement Year	2039-2040	Monthly Interest Contribution	$2.09
		Total Monthly Contribution	$309.81

Comments:

Component covers Lochinvar FTXL, Fire-Tube, high-efficiency, condensing boilers installed in November 2018 as part of a comprehensive boiler room modernization. Boilers provide hot water for building space heating and domestic water heating through indirect tanks listed separately. Contractor provided costs for this work per prior reserve study.

5	boilers	@	$15,000.00	=	$75,000.00
1	boiler controls	@	$15,000.00	=	$15,000.00
			TOTAL	=	$90,000.00

The Sample Condominium

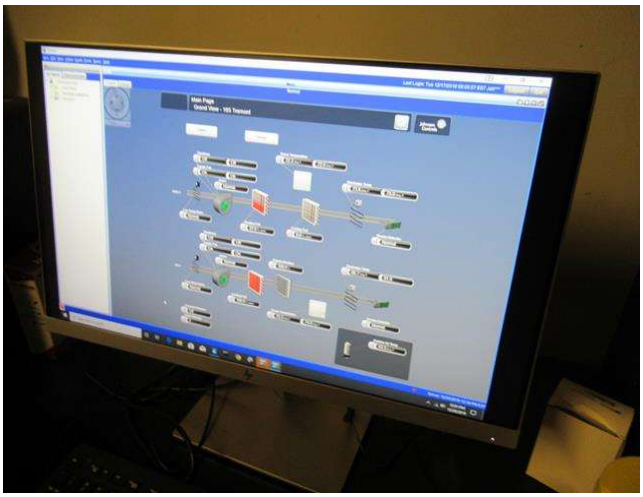
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Building Automation System

Category	090 Equipment	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	06/17	Future Cost	$5,253.13
Useful Life	5		
		Assigned Reserves at FYB	$3,000.00
Remaining Life	2	Monthly Member Contribution	$60.38
Replacement Year	2022-2023	Monthly Interest Contribution	$2.93
		Total Monthly Contribution	$63.30

Comments:



Johnson Controls Metasys® Building Automation System (BAS). Installed 2008. Periodic allowance for software upgrades and as-needed component replacements. Allowance per prior reserve study.

Equipment - Domestic Hot Water, Indirect Tanks

Category	090 Equipment	Quantity	4 tanks
Photo Date	December 2019	Unit Cost	$4,000.000
		% of Replacement	100.00%
		Current Cost	$16,000.00
Placed In Service	06/19	Future Cost	$20,993.39
Useful Life	12		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$89.67
Replacement Year	2031-2032	Monthly Interest Contribution	$0.61
		Total Monthly Contribution	$90.28

Comments:

Component covers 119 gallon indirect domestic water heater tanks. Useful life typically 10-15 years depending on city water quality. Next replacement of tanks should be less costly than $6250 indicated in prior reserve study.

Separate boilers heat water which circulates through heat exchanger pipes inside indirect water heater tanks. Pipes facilitate transfer of heat from boiler water to domestic hot water inside tank.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Domestic Hot Water, Mixing Valve

Category	090 Equipment	Quantity	1 valve
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	06/19	Future Cost	$7,064.87
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	14	Monthly Member Contribution	$22.46
Replacement Year	2034-2035	Monthly Interest Contribution	$0.15
		Total Monthly Contribution	$22.61

Comments:

Component covers thermostatic mixing valve to control temperature of domestic hot water supplied to building. Valve installed in November 2018 as part of a comprehensive boiler room modernization. Contractor provided costs for this work per prior reserve study. Replacement costs will likely be lower for replacement because of numerous startup issues that should not be repeated.

Equipment - Domestic Hot Water, Pump

Category	090 Equipment	Quantity	1 pump
Photo Date	December 2019	Unit Cost	$2,000.000
		% of Replacement	100.00%
		Current Cost	$2,000.00
Placed In Service	06/19	Future Cost	$2,825.95
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	14	Monthly Member Contribution	$8.98
Replacement Year	2034-2035	Monthly Interest Contribution	$0.06
		Total Monthly Contribution	$9.05

Comments:

Component covers pump circulating hot water through the building. Pump was installed in November 2018 as part of a comprehensive boiler room modernization. Contractor provided costs for this work per prior reserve study. A second replacement pump is available, but was never installed.

Small 1/6 horsepower in-line domestic hot water return pump is unfunded.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Electrical Repairs

Category	090 Equipment	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	06/20	Future Cost	$5,657.04
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$59.23
Replacement Year	2025-2026	Monthly Interest Contribution	$0.41
		Total Monthly Contribution	$59.64

Comments:

Component covers periodic allowance for electrical system repairs and replacements. As infrastructure ages, allowance should be adjusted in future reserve study updates.

Electrical components are typically unfunded due to lack of predictable useful life. However, given the large quantity of electrical equipment at the association, a periodic component is included.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Elevator Cab Refurbish

Category	090 Equipment	Quantity	2 elevator cabs
Photo Date	December 2019	Unit Cost	$20,000.000
		% of Replacement	100.00%
		Current Cost	$40,000.00
Placed In Service	06/16	Future Cost	$52,483.47
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$224.17
Replacement Year	2031-2032	Monthly Interest Contribution	$1.52
		Total Monthly Contribution	$225.69

Comments:

Component cover refurbishment of (2) elevator cabs. Cabs were in good condition at site visit. Frequency of cab refurbishment is mainly an aesthetic decision. Cabs were refurbished in 2016 at a cost of $16,000 each, per prior study.

Service contractor: Monty Mazyck, Service Sales Rep., Fujitec America, Inc. 857-327-3877

The Sample Condominium

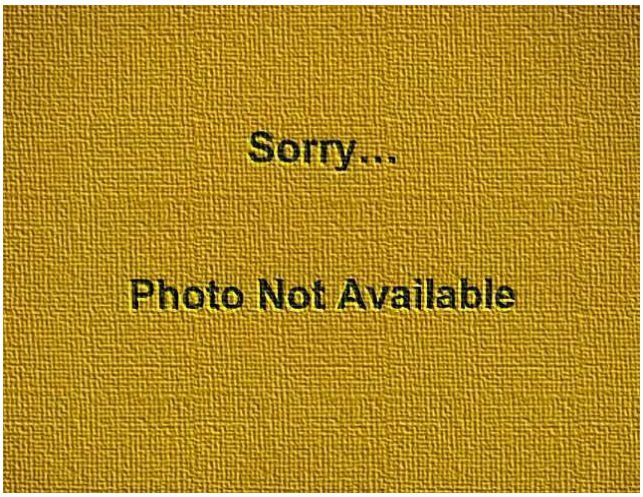
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Elevator Machine Room, Minisplit

Category	090 Equipment	Quantity	1 minisplit
Photo Date	December 2019	Unit Cost	$5,500.000
		% of Replacement	100.00%
		Current Cost	$5,500.00
Placed In Service	06/16	Future Cost	$7,216.48
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$30.82
Replacement Year	2031-2032	Monthly Interest Contribution	$0.21
		Total Monthly Contribution	$31.03

Comments:



Currently there is no cooling of elevator machine room. It is anticipated that cooling will be added when elevator is modernized. Component covers Mitsubishi ductless minisplit system that cools elevator machine room.

Installation of minisplit before a modernization of the elevator may prolong current elevator machinery life.

Equipment - Elevator Modernization

Category	090 Equipment	Quantity	2 elevators
Photo Date	December 2019	Unit Cost	$175,000.000
		% of Replacement	100.00%
		Current Cost	$350,000.00
Placed In Service	06/00	Future Cost	$448,029.59
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$2,143.35
Replacement Year	2030-2031	Monthly Interest Contribution	$14.55
		Total Monthly Contribution	$2,157.90

Comments:

Component covers modernization of (2) machine traction elevators. Fujitec elevators were functioning normally at site visit. Pricing from similar associations.

Service contractor: Monty Mazyck, Service Sales Rep., Fujitec America, Inc. 857-327-3877

For residential elevators that typically receive average use, a 30 year useful life for modernization is the standard ARS uses. Some manufacturers are recommending shorter intervals. The reduced time to modernization is due to the lack of availability of parts from vendors that supply electronic/computer components such as circuit boards. These parts become obsolete and no longer available faster than mechanical parts. Association should determine what funding schedule it is comfortable with.

The first modernization typically consists of controls, control wiring, motor replacement, and new bearings for traction elevator machine. The machine itself will likely last 50 years.

Operational experience: no issues reported other than door operators that are being addressed in a separate component.

Equipment - Elevator, Door Operators

Category	090 Equipment	Quantity	2 elevator doors
Photo Date	December 2019	Unit Cost	$18,282.000
		% of Replacement	100.00%
		Current Cost	$36,564.00
Placed In Service	06/00	Future Cost	$59,914.37
Useful Life	20		
Adjustment	-1	Assigned Reserves at FYB	$36,564.00
Remaining Life	0	Monthly Member Contribution	$119.54
Replacement Year	2020-2021	Monthly Interest Contribution	$0.81
		Total Monthly Contribution	$120.35

Comments:

Component covers replacement of (2) elevator car door operators. Doors have been problematic.

Service contractor: Monty Mazyck, Service Sales Rep., Fujitec America, Inc. 857-327-3877

Fujitec proposes to install 2 new G.A.L MOVFR master power car door operators with a state-of-the-art electronic detector edge, door locks, and clutches to assure appropriate door opening and closure for passenger safety per code. All work will take place during the regular working hours of the elevator
trade. The state now requires door operators to be inspected after installation. This cost is included
as well.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Emergency Communication BDA

Category	090 Equipment	Quantity	1 system
Photo Date	December 2019	Unit Cost	$13,500.000
		% of Replacement	100.00%
		Current Cost	$13,500.00
Placed In Service	06/00	Future Cost	$14,901.47
Useful Life	20		
Adjustment	+4	Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$198.56
Replacement Year	2024-2025	Monthly Interest Contribution	$1.35
		Total Monthly Contribution	$199.91

Comments:

Component covers bidirectional antenna (BDA) system for emergency responder communication. No issues reported. Antenna is original, per client. Price per similar association.

Battery replacement every 3-4 years will cost approximately $1000 and should be funded from operations.

The remaining life of this component has been extended due to its condition at our most recent site visit.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Fire Alarm

Category	090 Equipment	Quantity	1 main panel
Photo Date	December 2019	Unit Cost	$65,000.000
		% of Replacement	100.00%
		Current Cost	$65,000.00
Placed In Service	06/00	Future Cost	$69,997.89
Useful Life	20		
Adjustment	+3	Assigned Reserves at FYB	$28,171.51
Remaining Life	3	Monthly Member Contribution	$739.30
Replacement Year	2023-2024	Monthly Interest Contribution	$28.66
		Total Monthly Contribution	$767.95

Comments:

Component covers main parts of fire alarm system. The fire alarm system is composed of Edwards EST3 fully addressable fire alarm panel and peripheral equipment in the buildings. Component does not include re-wiring, pull stations, fire emergency lights, heat detectors, or horns. Replacement of peripheral devices currently on an as-needed basis. Funding for these devices can be added if desired.

Service contractor: Aetna Alarm, Pat Naughton, 617-293-8028
Per Mr. Naughton, parts are still available for fire alarm panel. It is expected that parts will be available in the near future and that replacement of the main fire alarm panel only will be needed in the next 3-5 years. Anticipated replacement cost is $65,000 including permits and testing.

Operational experience: No issues reported by client.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Fire Sprinkler, Compressor

Category	090 Equipment	Quantity	1 compressor
Photo Date	December 2019	Unit Cost	$2,000.000
		% of Replacement	100.00%
		Current Cost	$2,000.00
Placed In Service	06/00	Future Cost	$2,153.78
Useful Life	15		
Adjustment	+8	Assigned Reserves at FYB	$1,739.13
Remaining Life	3	Monthly Member Contribution	$6.43
Replacement Year	2023-2024	Monthly Interest Contribution	$1.50
		Total Monthly Contribution	$7.94

Comments:

Component covers 1/2 hp air compressor for dry fire sprinkler system in parking garage. Pump maintains air pressure in sprinkler pipes to detect if a sprinkler head discharges. If sprinkler system has low leak/loss rate, compressor may only run once a week. Compressor is original, per client, with no issues reported.

The remaining life of this component has been extended to reflect satisfactory operation at our most recent site visit.

Equipment - Fire Sprinkler, Jockey Pump

Category	090 Equipment	Quantity	1 pump
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	06/00	Future Cost	$5,384.45
Useful Life	20		
Adjustment	+3	Assigned Reserves at FYB	$4,347.83
Remaining Life	3	Monthly Member Contribution	$16.08
Replacement Year	2023-2024	Monthly Interest Contribution	$3.75
		Total Monthly Contribution	$19.84

Comments:

Component covers fire sprinkler jockey pump. Pump maintains wet sprinkler pipes at approximate target pressure to aid in sensing if a sprinkler head discharges. Jockey pump eliminates need for main fire pump to run to maintain system pressure. If sprinkler system has low leak/loss rate, pump may only run once a week.

The remaining life of this component has been extended to reflect satisfactory operation at our most recent site visit.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Fire Sprinkler, Main Pump

Category	090 Equipment	Quantity	1 pump
Photo Date	December 2019	Unit Cost	$32,500.000
		% of Replacement	100.00%
		Current Cost	$32,500.00
Placed In Service	06/00	Future Cost	$47,069.69
Useful Life	35		
		Assigned Reserves at FYB	$0.00
Remaining Life	15	Monthly Member Contribution	$137.13
Replacement Year	2035-2036	Monthly Interest Contribution	$0.93
		Total Monthly Contribution	$138.06

Comments:

Component covers replacement of Fairbanks Morse 66-HP, 750-GMP vertical in-line centrifugal fire pump & controller. No issues reported. Remaining life extended to reflect pump rebuild component listed separately.

Equipment - Fire Sprinkler, Main Pump, Rebuild

Category	090 Equipment	Quantity	1 pump rebuild
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	06/00	Future Cost	$5,253.13
Useful Life	20		
Adjustment	+2	Assigned Reserves at FYB	$4,545.45
Remaining Life	2	Monthly Member Contribution	$16.72
Replacement Year	2022-2023	Monthly Interest Contribution	$3.92
		Total Monthly Contribution	$20.65

Comments:

Component covers rebuild of Fairbanks Morse 66-HP, 750-GMP vertical in-line centrifugal fire pump & controller. No issues reported. Replacement of pump is listed as separate component. Pricing per prior reserve study.

The remaining life of this component has been extended to reflect satisfactory operation at our most recent site visit.

Equipment - Garage Access System%date

Category	090 Equipment	Quantity	1 access sensor
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$5,000.00
Placed In Service	06/16	Future Cost	$6,092.01
Useful Life	12		
		Assigned Reserves at FYB	$0.00
Remaining Life	8	Monthly Member Contribution	$37.77
Replacement Year	2028-2029	Monthly Interest Contribution	$0.25
		Total Monthly Contribution	$38.02

Comments:

Component covers replacement of Nedap RFID (Radio-frequency identification) sensor for parking garage access system. No issues reported. Component does not currently cover window buttons or tags on individual vehicles. These could be add if desired.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Garage CO Detection

Category	090 Equipment	Quantity	1 total
Photo Date	December 2019	Unit Cost	$11,100.000
		% of Replacement	100.00%
		Current Cost	$11,100.00
Placed In Service	06/00	Future Cost	$14,928.27
Useful Life	12		
Adjustment	+7	Assigned Reserves at FYB	$11,100.00
Remaining Life	0	Monthly Member Contribution	$57.40
Replacement Year	2020-2021	Monthly Interest Contribution	$0.39
		Total Monthly Contribution	$57.79

Comments:

Component covers Honeywell VA201T Vulcain Gas Detection Transmitter/carbon monoxide detectors and 301C Controller in parking garage.

Detector system controls operation of supply and exhaust fans to ensure that carbon monoxide levels are safe. There are total of 12 detectors.

Operational experience: No issues reported by client. Detectors and control are original. System is beyond typical useful life and should be tested to verify proper operation. Replacement should be expected in near future.

The remaining life of this component has been extended to reflect its continuing operation at our most recent site visit.

12	CO sensors	@	$700.00	=	$8,400.00
1	301C controller	@	$1,200.00	=	$1,200.00
1	installation	@	$1,500.00	=	$1,500.00
			TOTAL	=	$11,100.00

Equipment - Garage LED Signs

Category	090 Equipment	Quantity	3 signs
Photo Date	December 2019	Unit Cost	$1,000.000
		% of Replacement	100.00%
		Current Cost	$3,000.00
Placed In Service	06/10	Future Cost	$3,840.25
Useful Life	10		
		Assigned Reserves at FYB	$3,000.00
Remaining Life	0	Monthly Member Contribution	$18.37
Replacement Year	2020-2021	Monthly Interest Contribution	$0.13
		Total Monthly Contribution	$18.50

Comments:

Component covers replacement of Signal-tech arrow/X signs to increase garage driving safety. Two of the three signs were not displaying green arrow correctly at site visit.

The actual date this component was placed into service is not available. For budgeting purposes, this date has been estimated based on its condition at our most recent site visit.

Equipment - Garage Overhead Door

Category	090 Equipment	Quantity	1 overhead door
Photo Date	December 2019	Unit Cost	$50,000.000
		% of Replacement	100.00%
		Current Cost	$50,000.00
Placed In Service	06/13	Future Cost	$68,925.55
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	13	Monthly Member Contribution	$240.25
Replacement Year	2033-2034	Monthly Interest Contribution	$1.63
		Total Monthly Contribution	$241.88

Comments:

Component covers Rytec Predadoor NXT overhead garage door at entrance to parking garage. Current number of cycles is about 213,600. Door is in good condition at site visit and operating normally. Door was installed in 2013 and cycles average about 30,500 annually. Door is rated for 1,000,000 cycles with normal preventative repairs and maintenance. At current cycle rate, life could be 25+ years. More conservative 20 year useful life used.

Service contractor: Collins Overhead Door, Inc. Chelsea, MA 617-387-0759

Equipment - Garage, Unit Heaters

Category	090 Equipment	Quantity	2 heaters
Photo Date	December 2019	Unit Cost	$3,500.000
		% of Replacement	100.00%
		Current Cost	$7,000.00
Placed In Service	06/00	Future Cost	$8,960.59
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$42.87
Replacement Year	2030-2031	Monthly Interest Contribution	$0.29
		Total Monthly Contribution	$43.15

Comments:

Component covers unit heaters located on ceiling over exit ramp near garage door. Units utilize heated water from boilers. Access is difficult due to steep ramp and ceiling height. No issues reported.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Garage, Ventilation

Category	090 Equipment	Quantity	8 fans
Photo Date	December 2019	Unit Cost	$3,500.000
		% of Replacement	25.00%
		Current Cost	$7,000.00
Placed In Service	06/16	Future Cost	$7,726.69
Useful Life	8		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$102.96
Replacement Year	2024-2025	Monthly Interest Contribution	$0.70
		Total Monthly Contribution	$103.66

Comments:

Component covers periodic overhaul & replacement allowance for parking garage supply and exhaust fans. Quantity per prior reserve study. Fans were in good condition at site visit and likely have low use. Overhaul includes fan motors, belts, and bearings. Fan capacities range from 3,000 to 10,800 CFM.
As infrastructure ages, allowance should be adjusted in future reserve study updates.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Generator

Category	090 Equipment	Quantity	1 total
Photo Date	December 2019	Unit Cost	$250,000.000
		% of Replacement	100.00%
		Current Cost	$250,000.00
Placed In Service	06/00	Future Cost	$524,391.89
Useful Life	50		
		Assigned Reserves at FYB	$0.00
Remaining Life	30	Monthly Member Contribution	$580.91
Replacement Year	2050-2051	Monthly Interest Contribution	$3.94
		Total Monthly Contribution	$584.85

Comments:

Component covers Kohler generator and peripheral equipment. Diesel-powered generator is rated at 350 kW. Generator was in good condition at site visit. Useful life assumes rebuild component listed separately is implemented.

Service contractor: Kraft Power, Woburn, MA, 781-938-9100, Michael Kelleher
Operational experience: no major issues reported.

The use life of this component assumes infrequent use. If long power outages occur, remaining life should be decreased.

1	generator, transfer switch, program & test	@	$1.00	=	$1.00
1	general material & electrical labor	@	$1.00	=	$1.00
1	demo & crane allowance	@	$1.00	=	$1.00
			TOTAL	=	$3.00

The Sample Condominium

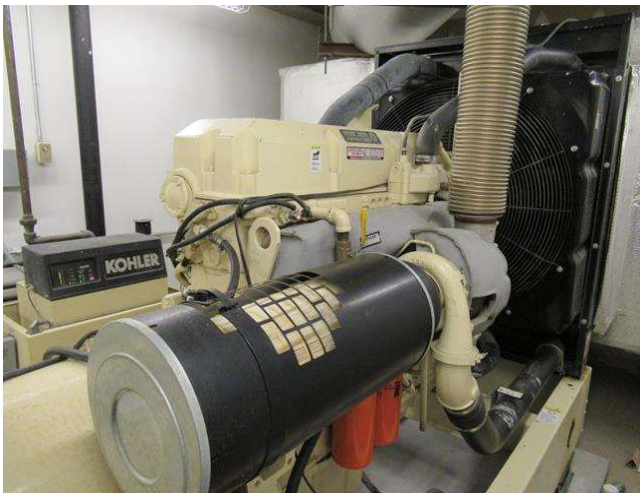
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Generator, Partial Rebuild

Category	090 Equipment	Quantity	1 rebuild
Photo Date	December 2019	Unit Cost	$15,000.000
		% of Replacement	100.00%
		Current Cost	$15,000.00
Placed In Service	06/00	Future Cost	$16,153.36
Useful Life	15		
Adjustment	+8	Assigned Reserves at FYB	$13,043.48
Remaining Life	3	Monthly Member Contribution	$48.25
Replacement Year	2023-2024	Monthly Interest Contribution	$11.27
		Total Monthly Contribution	$59.52

Comments:



Component covers Kohler generator and peripheral equipment. Diesel-powered generator is rated at 350 kW. Generator was in good condition at site visit. Complete replacement is listed as a separate component. Remaining life extended due to lack of issues.

Service contractor: Kraft Power, Woburn, MA, 781-938-9100, Michael Kelleher
Operational experience: no major issues reported.

The use life of this component assumes infrequent use. If long power outages occur, remaining life should be decreased.

Equipment - HVAC Pumps, Cooling Water

Category	090 Equipment	Quantity	2 pumps
Photo Date	December 2019	Unit Cost	$10,000.000
		% of Replacement	100.00%
		Current Cost	$20,000.00
Placed In Service	06/00	Future Cost	$21,537.81
Useful Life	20		
Adjustment	+3	Assigned Reserves at FYB	$17,391.30
Remaining Life	3	Monthly Member Contribution	$64.33
Replacement Year	2023-2024	Monthly Interest Contribution	$15.03
		Total Monthly Contribution	$79.36

Comments:

Component covers (2) 20 HP circulation pumps for cooling water loop supplying cold water to air handlers located throughout the building. No issues reported by management. Both pumps and one motor appear original to construction. One motor was replaced in 2013, per prior reserve study. Variable frequency drives installed in 2015 will help extend pump & motor useful life. However, pumps are near end of useful life and replacement should be anticipated in next several years. Remaining life extended to reflect current satisfactory operation near end of typical service life and motor replacement in 2013.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC Pumps, Heating Water

Category	090 Equipment	Quantity	2 pumps
Photo Date	December 2019	Unit Cost	$8,000.000
		% of Replacement	100.00%
		Current Cost	$16,000.00
Placed In Service	06/00	Future Cost	$17,230.25
Useful Life	20		
Adjustment	+3	Assigned Reserves at FYB	$13,913.04
Remaining Life	3	Monthly Member Contribution	$51.46
Replacement Year	2023-2024	Monthly Interest Contribution	$12.02
		Total Monthly Contribution	$63.49

Comments:

Component covers (2) 15 HP circulation pumps for hot water loop supplying heated water to air handlers located throughout the building. No issues reported by management. Motors and pumps appear original to construction. Notation on one pump indicates a new seal was installed in 2014. Variable frequency drives installed in 2015 will help extend pump & motor useful life. However, pumps are near end of useful life and replacement should be anticipated in next several years. Remaining life extended to reflect current satisfactory operation near end of typical service life.

Equipment - HVAC Pumps, VFD, Cooling Water

Category	090 Equipment	Quantity	2 VFD
Photo Date	December 2019	Unit Cost	$6,250.000
		% of Replacement	100.00%
		Current Cost	$12,500.00
Placed In Service	06/15	Future Cost	$18,103.73
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	15	Monthly Member Contribution	$52.74
Replacement Year	2035-2036	Monthly Interest Contribution	$0.36
		Total Monthly Contribution	$53.10

Comments:

Component covers (2) variable frequency drives (VFD) for cooling water loop supplying cold water to air handlers located throughout the building. No issues reported by management. Drives were installed in 2015, per prior reserve study.

Equipment - HVAC Pumps, VFD, Heating Water

Category	090 Equipment	Quantity	2 VFD
Photo Date	December 2019	Unit Cost	$6,250.000
		% of Replacement	100.00%
		Current Cost	$12,500.00
Placed In Service	06/15	Future Cost	$18,103.73
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	15	Monthly Member Contribution	$52.74
Replacement Year	2035-2036	Monthly Interest Contribution	$0.36
		Total Monthly Contribution	$53.10

Comments:

Component covers (2) variable frequency drives (VFD) for heating water loop supplying hot water to air handlers located throughout the building. No issues reported by management. Drives were installed in 2015, per prior reserve study.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC, Boiler Room Rebuild

Category	090 Equipment	Quantity	1 total
Photo Date	December 2019	Unit Cost	$225,000.000
		% of Replacement	75.00%
		Current Cost	$168,750.00
Placed In Service	06/19	Future Cost	$269,772.22
Useful Life	20		
		Assigned Reserves at FYB	$0.00
Remaining Life	19	Monthly Member Contribution	$576.98
Replacement Year	2039-2040	Monthly Interest Contribution	$3.92
		Total Monthly Contribution	$580.90

Comments:

Component covers piping/valves, pipe insulation, electrical wiring, rigging/crane, and miscellaneous costs for late 2018 boiler room modernization. Miscellaneous costs include water treatment, test & balance, demo labor, install labor, permits, etc.

It is anticipated that the next boiler room rebuild will require less infrastucture changes. In discussions with management, cost is assumed to be 75% of recent rebuild.

1	piping/valves	@	$50,000.00	=	$50,000.00
1	pipe insulation	@	$10,000.00	=	$10,000.00
1	electrical wiring	@	$20,000.00	=	$20,000.00
1	rigging & crane	@	$16,000.00	=	$16,000.00
1	miscellaneous	@	$129,000.00	=	$129,000.00
			TOTAL	=	$225,000.00

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC, Building Ventilation

Category	090 Equipment	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$2,500.000
		% of Replacement	100.00%
		Current Cost	$2,500.00
Placed In Service	06/19	Future Cost	$2,759.53
Useful Life	5		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$36.77
Replacement Year	2024-2025	Monthly Interest Contribution	$0.25
		Total Monthly Contribution	$37.02

Comments:

Component covers Carrier ventilation unit that provides fresh air in common hallway vestibule areas. No issues reported. Large enclosure contains several fans that can be replaced. Allowance covers periodic fan replacement. Allowance should be revised based on association experience in future reserve study updates.

Replacement of entire enclosure is not funded.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC, Chiller Repairs

Category	090 Equipment	Quantity	2 repairs
Photo Date	December 2019	Unit Cost	$40,000.000
		% of Replacement	100.00%
		Current Cost	$80,000.00
Placed In Service	06/20	Future Cost	$88,305.03
Useful Life	4		
		Assigned Reserves at FYB	$0.00
Remaining Life	4	Monthly Member Contribution	$1,176.68
Replacement Year	2024-2025	Monthly Interest Contribution	$7.98
		Total Monthly Contribution	$1,184.66

Comments:

Component covers repair of dual rooftop 250-ton Carrier packaged air-cooled liquid chillers which provide cold water for building cooling. Replacements of compressors and coils anticipated. Complete chiller replacements listed as separate component.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC, Chiller Replacements

Category	090 Equipment	Quantity	2 chillers
Photo Date	December 2019	Unit Cost	$205,000.000
		% of Replacement	100.00%
		Current Cost	$410,000.00
Placed In Service	06/00	Future Cost	$524,834.66
Useful Life	20		
Adjustment	+10	Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$2,510.78
Replacement Year	2030-2031	Monthly Interest Contribution	$17.05
		Total Monthly Contribution	$2,527.82

Comments:

Component covers dual rooftop 250-ton Carrier packaged air-cooled liquid chillers which provide cold water for building cooling. Useful life extended to reflect anticipated repairs. Compressor and coil repairs to extend life listed as separate component.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - HVAC, PTAC

Category	090 Equipment	Quantity	2 PTAC
Photo Date	December 2019	Unit Cost	$4,500.000
		% of Replacement	100.00%
		Current Cost	$9,000.00
Placed In Service	06/00	Future Cost	$9,455.63
Useful Life	15		
Adjustment	+7	Assigned Reserves at FYB	$8,181.82
Remaining Life	2	Monthly Member Contribution	$30.10
Replacement Year	2022-2023	Monthly Interest Contribution	$7.07
		Total Monthly Contribution	$37.17

Comments:

Component covers PTAC (packaged terminal air conditioners) supply cooling and heat to garage G2 & G3 mechanical rooms. PTAC units are original, per client.

The remaining life of this component has been extended due to its satisfactory operation at our most recent site visit.

Equipment - HVAC, Smoke Control

Category	090 Equipment	Quantity	4 fans
Photo Date	December 2019	Unit Cost	$5,000.000
		% of Replacement	100.00%
		Current Cost	$20,000.00
Placed In Service	06/00	Future Cost	$32,772.33
Useful Life	40		
		Assigned Reserves at FYB	$0.00
Remaining Life	20	Monthly Member Contribution	$65.39
Replacement Year	2040-2041	Monthly Interest Contribution	$0.44
		Total Monthly Contribution	$65.83

Comments:

Component covers stairwell pressurization fans for fire deparment smoke control. Quantity from prior reserve study. Useful life reflects light use with intermittent operation.

Equipment - HVAC, Unit Air Handlers

Category	090 Equipment	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$2,500.000
		% of Replacement	100.00%
		Current Cost	$2,500.00
Placed In Service	06/19	Future Cost	$2,562.50
Useful Life	2		
		Assigned Reserves at FYB	$1,250.00
Remaining Life	1	Monthly Member Contribution	$73.04
Replacement Year	2021-2022	Monthly Interest Contribution	$1.55
		Total Monthly Contribution	$74.59

Comments:

Component covers fan coil unit air handlers for common interior spaces. Allowance covers repairs and replacements as needed. Allowance amount and interval should be adjusted as association gains more experience with replacements. No issues reported except location of thermostat between supply and return on the same wall results in poor temperature control within units.

Association is responsible for about 35 air handlers, per client. Air handlers within units are unit owner responsibility.

Equipment - HVAC, Unit Heaters

Category	090 Equipment	Quantity	3 heaters
Photo Date	December 2019	Unit Cost	$3,000.000
		% of Replacement	100.00%
		Current Cost	$9,000.00
Placed In Service	06/00	Future Cost	$11,520.76
Useful Life	30		
		Assigned Reserves at FYB	$0.00
Remaining Life	10	Monthly Member Contribution	$55.11
Replacement Year	2030-2031	Monthly Interest Contribution	$0.38
		Total Monthly Contribution	$55.49

Comments:

Component covers unit heaters located in main entry vestibule and at rear stairwell exit door. Units utilize heated water from boilers. No issues reported.

Equipment - HVAC, Ventilation, General

Category	090 Equipment	Quantity	27 fans
Photo Date	December 2019	Unit Cost	$2,500.000
		% of Replacement	10.00%
		Current Cost	$6,750.00
Placed In Service	06/20	Future Cost	$7,269.01
Useful Life	3		
		Assigned Reserves at FYB	$0.00
Remaining Life	3	Monthly Member Contribution	$131.49
Replacement Year	2023-2024	Monthly Interest Contribution	$0.89
		Total Monthly Contribution	$132.38

Comments:

Component covers roof top hooded and mushroom fans exhausting air from various areas of buildings. Quantity per prior reserve study. Allowance to periodically replace fans.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Mailboxes

Category	090 Equipment	Quantity	1 total
Photo Date	December 2019	Unit Cost	$5,250.000
		% of Replacement	100.00%
		Current Cost	$5,250.00
Placed In Service	06/00	Future Cost	$7,603.57
Useful Life	30		
Adjustment	+5	Assigned Reserves at FYB	$0.00
Remaining Life	15	Monthly Member Contribution	$22.15
Replacement Year	2035-2036	Monthly Interest Contribution	$0.15
		Total Monthly Contribution	$22.30

Comments:

Component covers 35-door USPS-STD-4B+ horizontal recessed mailboxes in building lobby. Mailboxes were in good condition at site visit. The remaining life of this component has been extended due to its condition at our most recent site visit.

2	35-door mailboxes	@	$1,900.00	=	$3,800.00
1	letter drop box	@	$1,000.00	=	$1,000.00
3	installation allowance	@	$150.00	=	$450.00
			TOTAL	=	$5,250.00

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Office & Concierge

Category	090 Equipment	Quantity	1 allowance
Photo Date	December 2019	Unit Cost	$2,000.000
		% of Replacement	100.00%
		Current Cost	$2,000.00
Placed In Service	06/19	Future Cost	$2,101.25
Useful Life	3		
		Assigned Reserves at FYB	$666.67
Remaining Life	2	Monthly Member Contribution	$39.22
Replacement Year	2022-2023	Monthly Interest Contribution	$0.83
		Total Monthly Contribution	$40.04

Comments:

Component covers replacement allowance for office equipment used by concierge and building manager. No issues reported. Allowance should be revised based on association experience in future reserve study updates.

Equipment - Pumps, Domestic Water Booster

Category	090 Equipment	Quantity	1 duplex system
Photo Date	December 2019	Unit Cost	$41,780.000
		% of Replacement	100.00%
		Current Cost	$41,780.00
Placed In Service	06/19	Future Cost	$54,818.98
Useful Life	12		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$234.14
Replacement Year	2031-2032	Monthly Interest Contribution	$1.59
		Total Monthly Contribution	$235.73

Comments:

Component covers SyncroFlo domestic water duplex booster pumps. Pumps are powered by 5 hp motors. 125 gpm per pump typical. Cost, per prior reserve study, includes vertical removable-bladder hydropneumatic pressure tank.

Service contractor: Gustavo Preston, Chelmsford, MA, 978-856-5587
Per Ed Nickerson, variable frequency drive pumps have typical system useful life of 12 years. New system package consists of (2) pumps, variable frequency drive and control panel.

Control panels may also have individual components that need periodic replacement (electrical contactors are an example).

Equipment - Pumps, Foundation Drain

Category	090 Equipment	Quantity	1 pump system
Photo Date	December 2019	Unit Cost	$10,000.000
		% of Replacement	100.00%
		Current Cost	$10,000.00
Placed In Service	06/16	Future Cost	$13,120.87
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$56.04
Replacement Year	2031-2032	Monthly Interest Contribution	$0.38
		Total Monthly Contribution	$56.42

Comments:

Component covers ejector pumps for building foundation drains/groundwater. No issues reported by management. Placed-in-service date per prior reserve study.

Duplex pump system is located in lower G4 level garage along west wall. Component covers pumps and controls. Collection tank has long life unless damaged.

Service contractor: Gustavo Preston, Chelmsford, MA, 978-856-5587
Per Ed Nickerson, material-only cost to replace individual pump is about $3500.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Pumps, Garage Drains

Category	090 Equipment	Quantity	1 pump system
Photo Date	December 2019	Unit Cost	$10,000.000
		% of Replacement	100.00%
		Current Cost	$10,000.00
Placed In Service	06/16	Future Cost	$12,184.03
Useful Life	12		
		Assigned Reserves at FYB	$0.00
Remaining Life	8	Monthly Member Contribution	$75.54
Replacement Year	2028-2029	Monthly Interest Contribution	$0.51
		Total Monthly Contribution	$76.05

Comments:

Component covers ejector duplex pumps for garage floor drains. Oil, sand, and salt water pass through separator before entering floor drain tank. No issues reported by management. Placed-in-service date per prior reserve study.

Duplex pump system is located in lower G4 level garage along west wall. Component covers pumps and controls. Collection tank has long life unless damaged.

Service contractor: Gustavo Preston, Chelmsford, MA, 978-856-5587
Per Ed Nickerson, material-only cost to replace individual pump is about $3500.

Equipment - Pumps, Gas Pressure Booster

Category	090 Equipment	Quantity	1 pump system
Photo Date	December 2019	Unit Cost	$21,000.000
		% of Replacement	100.00%
		Current Cost	$21,000.00
Placed In Service	06/00	Future Cost	$23,759.57
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$248.77
Replacement Year	2025-2026	Monthly Interest Contribution	$1.69
		Total Monthly Contribution	$250.46

Comments:

Component covers natural gas pressure booster pumps. Dual Spencer hermetically-sealed multistage natural gas boosters with control panel. No issues reported by management.

Equipment - Tanks, Fuel Pumps

Category	090 Equipment	Quantity	1 system
Photo Date	December 2019	Unit Cost	$15,000.000
		% of Replacement	100.00%
		Current Cost	$15,000.00
Placed In Service	06/00	Future Cost	$16,971.12
Useful Life	20		
Adjustment	+5	Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$177.69
Replacement Year	2025-2026	Monthly Interest Contribution	$1.21
		Total Monthly Contribution	$178.90

Comments:

Automatic fuel oil transfer pump set with dual 1/2-hp explosion-proof pumps and control panel. No reported operating issues. Future replacement/upgrade allowance. Remaining life extended due to infrequent use. Cost per prior reserve study.

Equipment - Tanks, Fuel Storage

Category	090 Equipment	Quantity	2 tanks
Photo Date	December 2019	Unit Cost	$4,000.000
		% of Replacement	100.00%
		Current Cost	$8,000.00
Placed In Service	06/00	Future Cost	$13,108.93
Useful Life	40		
		Assigned Reserves at FYB	$0.00
Remaining Life	20	Monthly Member Contribution	$26.15
Replacement Year	2040-2041	Monthly Interest Contribution	$0.18
		Total Monthly Contribution	$26.33

Comments:

Component covers (2) 275 gallon diesel fuel storage tanks located in garage storage room. Steel tanks hold fuel for backup generator. No major issues reported. Tanks are without cathodic protection, but fuel usage is low so introduction of water in tank with fuel deliveries should be low also. Cathodic protection should be considered.

The Sample Condominium

Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Trash Compactor

Category	090 Equipment	Quantity	1 total
Photo Date	December 2019	Unit Cost	$18,000.000
		% of Replacement	100.00%
		Current Cost	$18,000.00
Placed In Service	06/00	Future Cost	$20,365.35
Useful Life	25		
		Assigned Reserves at FYB	$0.00
Remaining Life	5	Monthly Member Contribution	$213.23
Replacement Year	2025-2026	Monthly Interest Contribution	$1.45
		Total Monthly Contribution	$214.68

Comments:

Component covers chute-fed, sausage-type hydraulic compactor. No reported operating issues. Future replacement based on 25-year useful life, per client, based on prior reserve study comment.

1	new compactor	@	$16,000.00	=	$16,000.00
1	removal of old compactor	@	$2,000.00	=	$2,000.00
			TOTAL	=	$18,000.00

The Sample Condominium

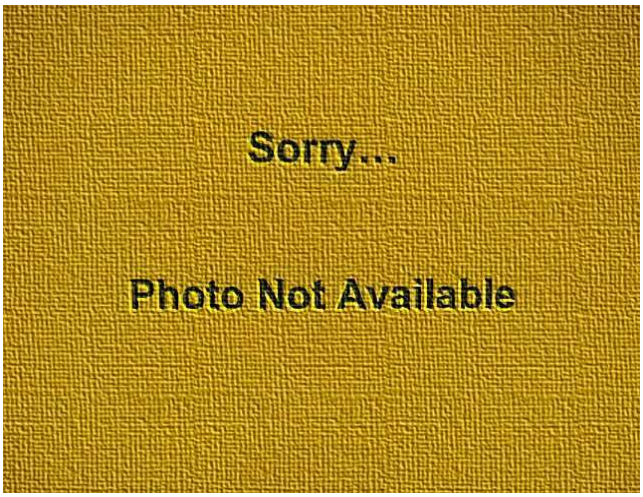
Component Detail

Directed Cash Flow Calculation Method; Sorted by Category

Equipment - Trash Containers

Category	090 Equipment	Quantity	2 containers
Photo Date	December 2019	Unit Cost	$2,300.000
		% of Replacement	100.00%
		Current Cost	$4,600.00
Placed In Service	06/16	Future Cost	$6,035.60
Useful Life	15		
		Assigned Reserves at FYB	$0.00
Remaining Life	11	Monthly Member Contribution	$25.78
Replacement Year	2031-2032	Monthly Interest Contribution	$0.17
		Total Monthly Contribution	$25.95

Comments:



Component covers new 2 cu. yd. containers. No reported operating issues. Containers were replaced in 2016, per client. Pricing from similar association.

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Number of components included in this reserve analysis is 107.