Michael Callahan(RS) Associates, LLC.

Sample

AnyCity, AnyState
Account Sample - Version 1
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Important Information

This document has been provided pursuant to an agreement containing restrictions on its use. No part of this document may be copied or distributed, in any form or by any means, nor disclosed to third parties without the expressed written permission of Michael Callahan & Associates, LLC. The client shall have the right to reproduce and distribute copies of this report, or the information contained within, as may be required for compliance with all applicable regulations.

This reserve analysis study and the parameters under which it has been completed are based upon information provided to us in part by representatives of the association, its contractors, assorted vendors, specialist and independent contractors, the Community Association Institute, and various construction pricing and scheduling manuals including, but not limited to: Marshall & Swift Valuation Service, RS Means Facilities Maintenance & Repair Cost Data, RS Means Repair & Remodeling Cost Data, National Construction Estimator, National Repair & Remodel Estimator, Dodge Cost Manual and McGraw-Hill Professional. Additionally, costs are obtained from numerous vendor catalogues, actual quotations or historical costs, and our own experience in the field of property management and reserve study preparation.

It has been assumed, unless otherwise noted in this report, that all assets have been designed and constructed properly and that each estimated useful life will approximate that of the norm per industry standards and/or manufacturer's specifications. In some cases, estimates may have been used on assets, which have an indeterminable but potential liability to the association. The decision for the inclusion of these as well as all assets considered is left to the client.

We recommend that your reserve analysis study be updated every two-three years due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the lives of many of the assets under consideration. All of the information collected during our inspection of the association and computations made subsequently in preparing this reserve analysis study are retained in our computer files. Therefore, annual updates may be completed quickly and inexpensively each year.

Michael Callahan & Associates, LLC. would like to thank you for using our services. We invite you to call us at any time, should you have questions, comments or need assistance. In addition, any of the parameters and estimates used in this study may be changed at your request, after which we will provide a revised study.

This reserve analysis study is provided as an aid for planning purposes and not as an accounting tool. Since it deals with events yet to take place, there is no assurance that the results enumerated within it will, in fact, occur as described.

Part I

Introduction

Preparing the annual budget and overseeing the organization's finances are perhaps the most important responsibilities of board members. The annual operating and reserve budgets reflect the planning and goals of the organization and set the level and quality of service for all of the association's activities.

Funding Options

When a major repair or replacement is required in a community, an organization has essentially three options available to address the expenditure:

The first, and only logical means that the Board has to ensure its ability to maintain the assets for which it

is obligated, is by **assessing an adequate level of reserves**.

Whereas, if the organization was setting aside reserves for this purpose, using the vehicle of the regularly assessed monthly fees, it would have had the full term of the life of the roof, for example, to accumulate the necessary moneys.

The second option is for the organization to **acquire a loan** from a lending institution in order to effect the required repairs. In many cases, banks will lend to an organization. With this method, the current board is pledging the future assets of an organization.

The third option, too often used, is simply to **defer the required repair or replacement**. This option, which is not recommended, can create an environment of declining property values due to expanding lists of deferred maintenance items and the organization's financial inability to keep pace with the normal aging process of the common area components. This, in turn, can have a seriously negative impact on maintaining the organization by making it difficult, or even impossible, for potential buyers to obtain financing from lenders. Increasingly, lending institutions are requesting copies of the association's most recent reserve study before granting loans, either for the association itself, a prospective purchaser, or for an individual within such an association.

Types of Reserve Studies

Most reserve studies fit into one of three categories:

Full Reserve Study;

Update with site inspection; and

Update without site inspection.

In a **Full Reserve Study**, the reserve provider conducts a component inventory, a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both a "fund status" and "funding plan".

In an **Update with site inspection**, the reserve provider conducts a component inventory (verification only, not quantification unless new components have been added to the inventory), a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both the "fund status and "funding plan."

In an **Update without site inspection**, the reserve provider conducts life and valuation estimates to determine the "fund status" and "funding plan."

The Reserve Study: A Physical and a Financial Analysis

There are two components of a reserve study: a physical analysis and a financial analysis.

Physical Analysis

During the physical analysis, a reserve study provider evaluates information regarding the physical status and repair/replacement cost of the organization's major common area components. To do so, the provider conducts a component inventory, a condition assessment, and life and valuation estimates.

Developing a Component List

The budget process begins with full inventory of all the major components for which the organization is responsible. The determination of whether an expense should be labeled as operational, reserve, or excluded altogether is sometimes subjective. Since this labeling may have a major impact on the financial plans of the organization, subjective determinations should be minimized. We suggest the following considerations when labeling an expense.

Operational Expenses

Occur at least annually, no matter how large the expense, and can be budgeted for effectively each year. They are characterized as being reasonably predictable, both in terms of frequency and cost. Operational expenses include all minor expenses, which would not otherwise adversely affect an operational budget from one year to the next. Examples of ***operational expenses*** include:

Utilities:
- Electricity
- Gas
- Water
- Telephone
- Cable TV

Administrative:
- Supplies
- Bank Service Charges
- Dues & Publications
- Licenses, Permits & Fees
- Insurance(s)

Services:
- Landscaping
- Accounting
- Painting

Repair Expenses:
- Roof Repairs
- Equipment Repairs
- Minor Concrete Repairs
- Operating Contingency

Reserve Expenses

These are major expenses that occur other than annually, and which must be budgeted for in advance in order to ensure the availability of the necessary funds in time for their use. Reserve expenses are reasonably predictable both in terms of frequency and cost. However, they may include significant assets that have an indeterminable but potential liability that may be demonstrated as a likely occurrence. They are expenses that, when incurred, would have a significant effect on the smooth operation of the budgetary process from one year to the next, if they were not reserved for in advance. Examples of reserve expenses include:

- Roof Replacements
- Reserve Study
- Deck Resurfacing
- Fencing Replacement
- Asphalt Seal Coating
- Asphalt Repairs
- Asphalt Overlays
- Interior Furnishings
- Lighting Replacement
- Equipment Replacement

Budgeting is Normally Excluded for:

Repairs or replacements of assets which are deemed to have an estimated useful life equal to or exceeding the estimated useful life of the facility or community itself, or exceeding the legal life of the community as defined in an organization's governing documents. Examples include the complete replacement of foundations, wiring (electrical services) and plumbing (water & Sewer services). Also excluded are insignificant expenses that may be covered either by an operating or reserve contingency, or otherwise in a general maintenance fund. Expenses that are necessitated by acts of nature, accidents or other occurrences that are more properly insured for, rather than reserved for, are also excluded.

Financial Analysis

The financial analysis assesses the organization's reserve balance or "fund status" (measured in cash or as percent fully funded) to determine a recommendation for the appropriate reserve contribution rate in the

future, known as the "funding plan".

Preparing the Reserve Study

Once the reserve assets have been identified and quantified, their respective replacement costs, useful lives and remaining lives must be assigned so that a funding schedule can be constructed. Replacement costs and useful lives can be found in published manuals such as construction estimators, appraisal handbooks, and valuation guides. Remaining lives are calculated from the useful lives and ages of assets and adjusted according to conditions such as design, manufactured quality, usage, exposure to the elements and maintenance history.

By following the recommendations of an effective reserve study, the organization should avoid any major shortfalls. However, to remain accurate, the report should be updated every two – three years to reflect such changes as shifts in economic parameters, additions of phases or assets, or expenditures of reserve funds. The organization can assist in simplifying the reserve analysis update process by keeping accurate records of these changes throughout the year.

Funding Methods

From the simplest to the most complex, reserve analysis providers use many different computational processes to calculate reserve requirements. However, there are two basic processes identified as industry standards: the cash flow method and the component method.

The cash flow method develops a reserve-funding plan where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different reserve funding plans are tested against the actual anticipated schedule of reserve expenses until the desired funding goal is achieved. This method sets up a "window" in which all future anticipated replacement costs are computed, based upon the individual lives of the components under consideration. The Michael Callahan & Associates, LLC. Threshold and the Michael Callahan & Associates, LLC. Current Assessment funding models are based upon the cash flow method.

The component method develops a reserve-funding plan where the total contribution is based upon the sum of contributions for individual components. The component method is the more conservative of the two funding options, and assures that the association will achieve and maintain an ideal level of reserve over time. This method also allows for computations on individual components in the analysis. The Michael Callahan & Associates, LLC. Component Funding model is based upon the component methodology.

Funding Strategies

Once an organization has established its funding goals, the organization can select an appropriate funding plan. There are four basic strategies from which most organizations select. It is recommended that the organization consult professionals to determine the best strategy or combination of plans that best suit the organization's need. Additionally, organizations should consult with their financial advisor to determine the tax implications of selecting a particular plan. Further, consultation with the American Institute of Certified Public Accountants (AICPA) for their reporting requirements is advisable. The four funding plans and descriptions of each are detailed below. Organizations will have to update their reserve studies more or less frequently depending on the funding strategy they select.

Full Funding---Given that the basis of funding for reserves is to distribute the costs of the replacements over the lives of the components in question, it follows that the ideal level of reserves would be proportionately related to those lives and costs. If an organization has a component with an expected estimated useful life of ten years, it would set aside approximately one-tenth of the replacement cost each year. At the end of three years, one would expect three-tenths of the replacement cost to have accumulated, and if so, that component would be "fully-funded." This model is important in that it is a

measure of the adequacy of an organization's reserves at any one point of time, and is independent of any particular method which may have been used for past funding or may be under consideration for future funding. This formula represents a snapshot in time and is based upon current replacement cost, independent of future inflationary or investment factors:

Fully Funded Reserves = **Age** divided by **Useful Life** the results multiplied by **Current Replacement Cost**

When an organization's total accumulated reserves for all components meet this criterion, its reserves are considered "fully-funded."

The Michael Callahan & Associates, LLC. **Threshold Funding Model (Minimum Funding)**. The goal of this funding method is to keep the reserve cash balance above zero. This means that while each individual component may not be fully funded, the reserve balance overall does not drop below zero during the projected period. An organization using this funding method must understand that even a minor reduction in a component's remaining useful life can result in a deficit in the reserve cash balance.

The Michael Callahan & Associates, LLC. **Threshold Funding Model.** This method is based upon the cash flow funding concept. The minimum reserve cash balance in threshold funding, however, is set at a predetermined dollar amount (other than $0).

The Michael Callahan & Associates, LLC. **Current Assessment Funding Model**. This method is also based upon the cash flow funding concept. The initial reserve assessment is set at the organization's current fiscal year funding level and a timeframe (yrs) projection is calculated to illustrate the adequacy of the current funding over time.

The Michael Callahan & Associates, LLC. **Recommended Assessment Funding Model**. This method is also based upon the cash flow funding concept. The reserve assessment is set (directed) at a level that will properly fund the reserves over a timeframe (yrs) projections and is calculated to illustrate the needed funding over time.

The Michael Callahan & Associates, LLC. **Component Funding Model**. This is a straight-line funding model. It distributes the cash reserves to individual reserve components and then calculates what the reserve assessment and interest contribution (minus taxes) should be, again by each reserve component. The current annual assessment is then determined by summing all the individual component assessments, hence the name "Component Funding Model". This is the most conservative funding model. It leads to or maintains the fully funded reserve position. The following details this calculation process.

Component Funding Model Distribution of Accumulated Reserves

The "Distribution of Accumulated Reserves Report" is a "Component Funding Model" calculation. This distribution **does not** apply to the cash flow funding models.

When calculating reserves based upon the component methodology, a beginning reserve balance must be allocated for each of the individual components considered in the analysis, before the individual calculations can be completed. When this distribution is not available, or of sufficient detail, the following method is suggested for allocating reserves:

The first step the program performs in this process is subtracting, from the total accumulated reserves, any amounts for assets that have predetermined (fixed) reserve balances. The user can "fix" the accumulated reserve balance within the program on the individual asset's detail page. If, by error, these amounts total more than the amount of funds available, then the remaining assets are adjusted accordingly. A provision for a contingency reserve is then deducted by the determined percentage used, and if there are sufficient remaining funds available.

The second step is to identify the ideal level of reserves for each asset. As indicated in the prior section,

this is accomplished by evaluating the component's age proportionate to its estimated useful life and current replacement cost. Again, the equation used is as follows:

Fully Funded Reserves = (Age/Useful Life) x Current Replacement Cost

The Michael Callahan & Associates, LLC. software program performs the above calculations to the actual month the component was placed-in-service. The program projects that the accumulation of necessary reserves for repairs or replacements will be available on the first day of the fiscal year in which they are scheduled to occur.

The next step the program performs is to arrange all of the assets used in the study in ascending order by remaining life, and alphabetically within each grouping of remaining life items. These assets are then assigned their respective ideal level of reserves until the amount of funds available is depleted, or until all assets are appropriately funded. If any assets are assigned a zero remaining life (scheduled for replacement in the current fiscal year), then the amount assigned equals the current replacement cost and funding begins for the next cycle of replacement. If there are insufficient funds available to accomplish this, then the software automatically adjusts the zero remaining life items to one year, and that asset assumes its new grouping position alphabetically in the final printed report.

If, at the completion of this task, there are additional moneys that have not been distributed, the remaining reserves are then assigned, in ascending order, to a level equal to, but not exceeding, the current replacement cost for each component. If there are sufficient moneys available to fund all assets at their current replacement cost levels, then any excess funds are designated as such and are not factored into any of the report computations. If, at the end of this assignment process there are designated excess funds, they can be used to offset the monthly contribution requirements recommended, or used in any other manner the client may desire.

Assigning the reserves in this manner defers the make-up period for any under-funding over the longest remaining life of all assets under consideration, thereby minimizing the impact of any deficiency. For example, if the report indicates an under funding of $50,000, this under-funding will be assigned to components with the longest remaining lives in order to give more time to "replenish" the account. If the $50,000 under-funding were to be assigned to short remaining life items, the impact would be felt immediately.

If the reserves are under-funded, the monthly contribution requirements, as outlined in this report, can be expected to be higher than normal. In future years, as individual assets are replaced, the funding requirements will return to their normal levels.

Funding Reserves

Three assessment and contribution figures are provided in the report, the "Monthly Reserve Assessment Required", the "Average Net Monthly Interest Earned" contribution and the "Total Monthly Allocation to Reserves." The organization should allocate the "Monthly Reserve Assessment Required" amount to reserves each month when the interest earned on the reserves is left in the reserve accounts as part of the contribution. Any interest earned on reserve deposits, must be left in reserves and only amounts set aside for taxes should be removed.

The second alternative is to allocate the "Total Monthly Allocation" to reserves (this is the member assessment plus the anticipated interest earned for the fiscal year). This method assumes that all interest earned will be assigned directly as operating income. This allocation takes into consideration the anticipated interest earned on accumulated reserves regardless of whether or not it is actually earned. When taxes are paid, the amount due will be taken directly from the organization's operating accounts as the reserve accounts are allocated only those moneys net of taxes.

Users' Guide to your Reserve Analysis Study

Part II of your Michael Callahan & Associates, LLC. Report contains the reserve analysis study for your organization. There are seven types of reports in the study as described below.

Report Summaries

The Report Summary for all funding models lists all of the parameters that were used in calculating the report as well as the summary of your reserve analysis study.

Index Reports

The **Distribution of Accumulated Reserves** report lists all assets in remaining life order. It also identifies the ideal level of reserves that should have accumulated for the organization as well as the actual reserves available. This information is valid only for the "Component Funding Model" calculation.

The **Component Listing/Summary** lists all assets by category (i.e. roofing, painting, lighting, etc.) together with their remaining life, current cost, monthly reserve contribution, and net monthly allocation.

Detail Reports

The Detail Report itemizes each asset and lists all measurements, current and future costs, and calculations for that asset. Provisions for percentage replacements, salvage values, and one-time replacements can also be utilized. These reports can be sorted by category or group.

The numerical listings for each asset are enhanced by extensive narrative detailing factors such as design, manufactured quality, usage, exposure to elements and maintenance history.

The Michael Callahan & Associates, LLC. Detail Index is an alphabetical listing of all assets, together with the page number of the asset's detail report, the projected replacement year, and the asset number.

Projections

Twenty-year or Thirty-year projections add to the usefulness of your reserve analysis study.

Definitions

Report I.D.
Includes the Report Date (example: November 15, 1992), Account Number (example: 9773), and Version (example: 1.0). Please use this information (displayed on the summary page) when referencing your report.

Budget Year Beginning/Ending
The budgetary year for which the report has been prepared for organizations with fiscal years ending December 31st, the monthly contribution figures indicated are for the 12-month period beginning 1/1/20xx and ending 12/31/20xx.

Number of Units and/or Phases
If applicable, the number of units and/or phases have been included in this version of the report.

Inflation
This figure is used to approximate the future cost to repair or replace each component in the report. The current cost for each component is compounded on an annual basis by the number of remaining years to replacement, and the total is used in calculating the monthly reserve contribution that will be necessary to accumulate the required funds in time for replacement.

Annual Assessment Increase
This represents the percentage rate at which the organization will increase its assessment to reserves at the end of each year. For example, in order to accumulate $10,000 in 10 years, you could set aside

$1,000 per year. As an alternative, you could set aside $795 the first year and increase that amount by 5% each year until the year of replacement. In either case you arrive at the same amount. The idea is that you start setting aside a lower amount and increase that number each year in accordance with the planned percentage. Ideally this figure should be equal to the rate of inflation. It can, however, be used to aide those organizations that have not set aside appropriate reserves in the past, by making the initial year's allocation less formidable.

Investment Yield Before Taxes

The average interest rate anticipated by the organization based upon its current investment practices.

Taxes on Interest Yield
The estimated percentage of interest income that will be set aside to pay income taxes on the interest earned.

Projected Reserve Balance
The anticipated reserve balance on the first day of the fiscal year for which this report has been prepared based upon information provided and not audited.

Percent Fully Funded
The ratio, at the beginning of the fiscal year, of the actual (or projected) reserve balance to the calculated fully funded balance, expressed as a percentage.

Phase Increment Detail and/or Age
Comments made regarding aging of the components on the basis of construction date or date of acceptance by the organization.

Monthly Assessment
The assessment to reserves required by the organization each month.

Interest Contribution (After Taxes)
The interest that should be earned on the reserves, net of taxes, based upon their beginning reserve balance and monthly contributions for one year. This figure is averaged for budgeting purposes.

Total Monthly Allocation
The sum of the monthly assessment and interest contribution figures.

Group and Category
The report may be prepared and sorted either by group (location, building, phase, etc.) or by category (roofing, painting, etc.). The standard report printing format is by category.

Percentage of Replacement or Repairs
In some cases, an asset may not be replaced in its entirety or the cost may be shared with a second party. Examples are budgeting for a percentage of replacement of streets over a period of time, or sharing the expense to replace a common wall with a neighboring party.

Placed-In-Service Date
The month and year that the asset was placed-in-service. This may be the construction date, the first escrow closure date in a given phase, or the date of the last servicing or replacement.

Estimated Useful Life
The estimated useful life of an asset based upon industry standards, manufacturer specifications, visual inspection, location, usage, organization standards and prior history. All of these factors are taken into consideration when tailoring the estimated useful life to the particular asset. For example, the carpeting in a hallway or elevator (a heavy traffic area) will not have the same life as the identical carpeting in a seldom-used meeting room or office.

Adjustment to Useful Life
Once the useful life is determined, it may be adjusted, up or down, by this separate figure for the current cycle of replacement. This will allow for a current period adjustment without affecting the estimated replacement cycles for future replacements.

Estimated Remaining Life
This calculation is completed internally based upon the report's fiscal year date and the date the asset was placed-in-service.

Replacement Year
The year that the asset is scheduled to be replaced. The appropriate funds will be available by the first day of the fiscal year for which replacement is anticipated.

Annual Fixed Reserves
An optional figure which, if used, will override the normal process of allocating reserves to each asset.

Fixed Assessment
An optional figure which, if used, will override all calculations and set the assessment at this amount. This assessment can be set for monthly, quarterly or annually as necessary.

Salvage Value
The salvage value of the asset at the time of replacement, if applicable.

One-Time Replacement
Notation if the asset is to be replaced on a one-time basis.

Current Replacement Cost
The estimated replacement cost effective at the beginning of the fiscal year for which the report is being prepared

Future Replacement Cost
The estimated cost to repair or replace the asset at the end of its estimated useful life based upon the current replacement cost and inflation.

Component Inventory
The task of selecting and qualifying reserve components. This task can be accomplished through on-site visual, review of organization design and organizational documents, a review of established organization precedents, and discussion with appropriate organization representative(s).

A Multi-Purpose Tool

Your Michael Callahan & Associates, LLC. Report is an important part of your organization's budgetary process. Following its recommendations should ensure the organization's smooth budgetary transitions from one fiscal year to the next. In addition Michael Callahan & Associates, LLC. reserve study serves a variety of useful purposes:

- Following the recommendations of a reserve study performed by a professional consultant can protect the Board of Directors in a community from personal liability concerning reserve components and reserve funding.
- A reserve analysis study is required by your accountant during the preparation of the organization's annual audit.
- The Michael Callahan & Associates, LLC. reserve study is often requested by lending institutions during the process of loan applications, both for the community and, in many cases, the individual owners.
- Your Michael Callahan & Associates, LLC. Report is also a detailed inventory of the organization's major assets and serves as a management tool for scheduling, coordinating and planning future repairs and replacements.
- Your Michael Callahan & Associates, LLC. Report is a tool that can assist the Board in fulfilling its legal and fiduciary obligations for maintaining the community in a state of good repair.
- Since the Michael Callahan & Associates, LLC. reserve analysis study includes measurements and cost estimates of the client's assets, the detail reports may be used to evaluate the accuracy and price of contractor bids when assets are due to be repaired or replaced.
- Your Michael Callahan & Associates, LLC. Report provides a record of the time, cost, and quantities of past reserve replacements. At times the organization's management company and board of directors are transitory which may result in the loss of these important records.

Designation/Award

In March 2000, Michael Callahan was awarded the Reserve Specialist (RS) designation from Community Associations Institute (CAI). Mr. Callahan was the 48th person in the United States to receive this professional designation.

The RS designation was developed by CAI for professional reserve analysts who wish to confirm to their peers and/or clients that they have demonstrated a basic level of competency within the industry. The RS designation is awarded to reserve analysts who are dedicated to the highest standards of professionalism and reserve analysis preparation.

In 1999 Michael Callahan, RS was awarded the CAI-Community Association Professional of the Year Award. In 2003 Michael Callahan, RS was awarded the CAI-Association Professional Service Award.

Consultant certifies that:

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

conflicts of interest.

2) Component conditional assessments were developed by actual field observation.

3) Financial assumptions used in this analysis are listed on the Funding Assessment Summary.

4) Consultant is a Reserve Specialist (RS) designee.

5) Future updates of this report performed by Michael Callahan & Associates, LLC. would range in cost from 1/3 to 1/2 the original cost to perform the reserve analysis. The Association is entitled to one set of free revisions to the original report. A revision is not an update. A revision is to make changes adjustments to the original report after the client has had time to review the report. The changes/adjustments must be made available to MCA within 90 days of receiving the first draft of the report. Revision changes/adjustments must be for past repairs/replacements, future repair/replacement adjustments/changes are considered an update if they are for the current fiscal year or future fiscal years.

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

7) It is assumed that all building assets/construction was built to code at the time of construction and was built with proper application, unless otherwise noted throughout the report and/or if information stating otherwise was provided to Michael Callahan & Associates, LLC. by the client. Michael Callahan & Associates, LLC. will not and did not do any testing for construction defects. No testing was done for any building codes.

8) The findings in this report are an opinion based on an actual visual on-site-inspection and from information provided to Michael Callahan & Associates, LLC. by the client. No testing of any kind was performed during the visual on-site-inspection. This report does not include destructive testing results. The visual on-site-inspection consists of a visual inspection of all accessible areas. Conditions or issues that could not be detected by a visual inspection are not the responsibility of Michael Callahan & Associates, LLC. or any consultant of Michael Callahan & Associates, LLC. Michael Callahan & Associates, LLC. is not required to report issues of any kind on any component.

9) No warranty, expressed or implied is made concerning services performed for this report, including the Consultant's findings, recommendations or professional advice.

10) LIMITATIONS OF RESERVE ANALYSIS

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

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

The representations set forth in this reserve analysis are based on the best information and estimates of the preparer as of the date of this analysis. These estimates are subject to change. This reserve analysis

includes estimates of replacement costs and life expectancies as well as assumptions regarding future events. Some estimates are projections of future events based on information currently available and are not necessarily indicative of the actual future outcome. The longer the time period between the estimate and the estimated event, the more likely the possibility or error and/or discrepancy. For example, some assumptions inevitably will not materialize and unanticipated events and circumstances many 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 excluded when assessing life expectancy, repair and/or replacement costs of the components.

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Consultant certifies that:
1) Consultant has no other involvement with organization which could result in actual or perceived conflicts of interest.

2) Component conditional assessments were developed by actual field observation.

3) Financial assumptions used in this analysis are listed on the Executive Summary.

4) Consultant is a Reserve Specialist (RS) designee.

5) Future updates of this report performed by Michael Callahan & Associates, LLC. would range in cost from 1/3 to 1/2 the original cost to perform the reserve analysis. The organization is entitled to one set of free revisions to the original report. A revision is not an update. A revision is to make changes adjustments to the original report after the client has had time to review the report. The changes/adjustments must be made available to MCA within 90 days of receiving the first draft of the report. Revision changes/adjustments must be for past repairs/replacements, future repair/replacement adjustments/changes are considered an update if they are for the current fiscal year or future fiscal years.

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

7) It is assumed that all building assets/construction was built to code at the time of construction and was built with proper application, unless otherwise noted throughout the report and/or if information stating otherwise was provided to Michael Callahan & Associates, LLC. by the client. Michael Callahan & Associates, LLC. will not and did not do any testing for construction defects. No testing was done for any building codes.

8) The findings in this report are an opinion based on an actual visual on-site-inspection and from information provided to Michael Callahan & Associates, LLC. by the client. No testing of any kind was performed during the visual on-site-inspection. This report does not include destructive testing results. The visual on-site-inspection consists of a visual inspection of all accessible areas. Conditions or issues that could not be detected by a visual inspection are not the responsibility of Michael Callahan & Associates, LLC. or any consultant of Michael Callahan & Associates, LLC. Michael Callahan & Associates, LLC. is not required to report issues of any kind on any component.

9) No warranty, expressed or implied is made concerning services performed for this report, including the Consultant's findings, recommendations or professional advice.

10) LIMITATIONS OF RESERVE ANALYSIS

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

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

The representations set forth in this reserve analysis are based on the best information and estimates of the preparer as of the date of this analysis. These estimates are subject to change. This reserve analysis includes estimates of replacement costs and life expectancies as well as assumptions regarding future events. Some estimates are projections of future events based on information currently available and are not necessarily indicative of the actual future outcome. The longer the time period between the estimate and the estimated event, the more likely the possibility or error and/or discrepancy. For example, some assumptions inevitably will not materialize and unanticipated events and circumstances many 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 organization'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 excluded when assessing life expectancy, repair and/or replacement costs of the components.

Sample
AnyCity, AnyState
MCA Current Assessment Funding Model Summary (Cash Flow)

Report Date	January 1, 2019
Account Number	Sample
Version	1
Budget Year Beginning	January 1, 2019
Budget Year Ending	December 31, 2019
Total Units	100
Phase Development	1 of 1

Report Parameters

Inflation	2.00%
Annual Reserve Funding Increase	5.00%
Interest Rate on Reserve Deposit	2.00%
Tax Rate on Interest	30.00%
2019 Beginning Balance	$125,150

Sample is located in AnyCity AnyState the property consists of residential unit.

For budgeting purposes Michael Callahan & Associates, LLC. will use January, 1 1991 for all original components. Components replaced since original will be noted throughout the report with the placed-in-service replacement date or an estimated replacement date.

The Official Michael Callahan & Associates, LLC. visual on-site-inspection was performed on March, 5 2018.

The detail section of this reserve study will have information on all assets included in this report. Some assets may be listed for inventory purposes only.

The anticipated reserve fund balance is based on current reserve fund & contribution information that was provided to MCA, LLC. by the client.

Fiscal Year January, 1 2019 Beginning Balance: $125,150

Current Assessment Funding Model. This model type is also referred to as a Cash Flow model or Statutory Funding model. This analysis is based on the current annual assessment, parameters, and reserve fund balance. Because It is calculated using the current annual assessment, it will give an accurate projection of how well the association is funded for the next 20 years of planned reserve expenditures.

Asset repair & replacement costs are estimates based on National Data, Local Contractors, provided bid proposals from the client, and actual costs provided by the client.

Current Assessment Funding Model Summary of Calculations

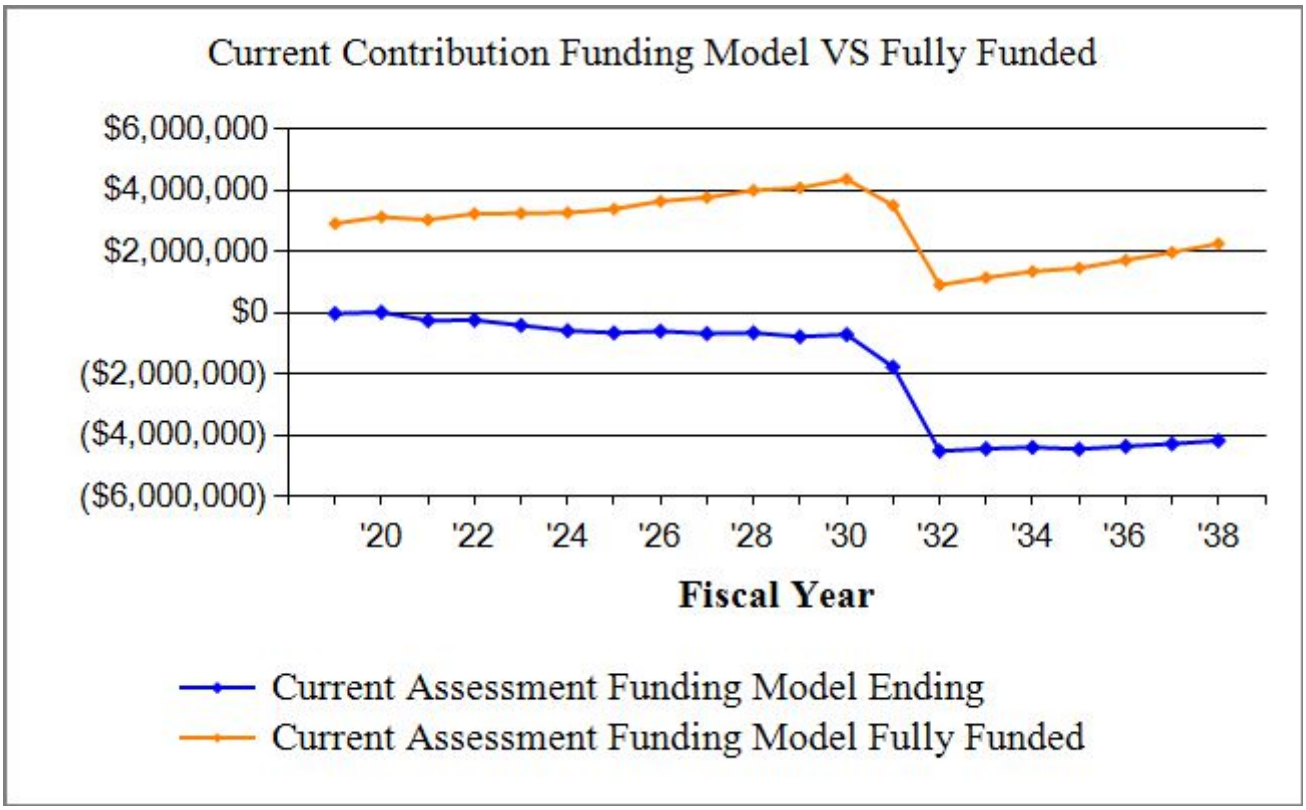
Required Annual Contribution	$39,996.00
$399.96 per unit annually	
Average Net Annual Interest Earned	$0.00
Total Annual Allocation to Reserves	$39,996.00
$399.96 per unit annually	

Sample
MCA Current Assessment Funding Model Projection

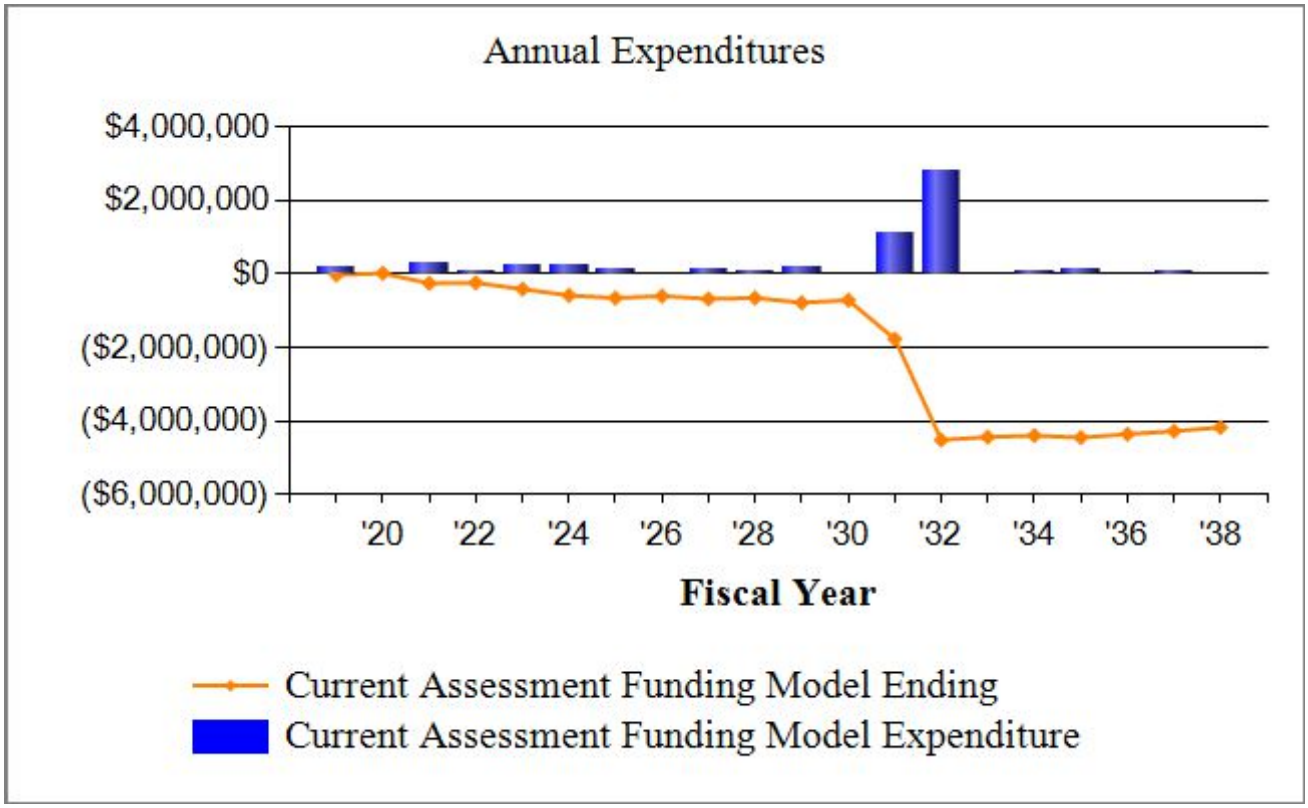
Beginning Balance: $125,150

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2019	4,288,774	39,996		186,000	-20,854	2,915,361	
2020	4,374,549	41,996	296		21,438	3,129,439	1%
2021	4,462,040	44,096		314,878	-249,345	3,037,850	
2022	4,551,281	46,300		31,836	-234,880	3,236,471	
2023	4,642,307	48,615		220,816	-407,081	3,250,181	
2024	4,735,153	51,046		220,816	-576,851	3,268,332	
2025	4,829,856	53,598		126,581	-649,833	3,387,570	
2026	4,926,453	56,278			-593,555	3,641,964	
2027	5,024,982	59,092		138,959	-673,422	3,763,935	
2028	5,125,482	62,047		35,853	-647,227	3,997,331	
2029	5,227,991	65,149		192,939	-775,017	4,079,060	
2030	5,332,551	68,407			-706,610	4,363,194	
2031	5,439,202	71,827		1,128,541	-1,763,324	3,507,053	
2032	5,547,986	75,418		2,821,679	-4,509,585	912,698	
2033	5,658,946	79,189			-4,430,396	1,148,840	
2034	5,772,125	83,149		40,376	-4,387,623	1,352,880	
2035	5,887,567	87,306		142,770	-4,443,087	1,461,004	
2036	6,005,319	91,672			-4,351,415	1,721,449	
2037	6,125,425	96,255		14,282	-4,269,442	1,977,160	
2038	6,247,934	101,068			-4,168,374	2,257,270	

Sample
MCA Current Assessment Funding Model VS Fully Funded Chart



The Current Assessment Funding Model is based on the current annual assessment, parameters, and reserve fund balance. Because it is calculated using the current annual assessment, it will give the accurate projection of how well the association will be funded for the projected years of planned reserve expenditures.


Annual Expenditures
$4,000,000
$2,000,000
$0
($2,000,000)
($4,000,000)
($6,000,000)
'20
'22
'24
'26
'28
'30
'32
'34
'36
'38
Fiscal Year
Current Assessment Funding Model Ending
Current Assessment Funding Model Expenditure

Sample
MCA Current Assessment Spread Sheet

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Beginning Balance	125,150	-20,854	21,438	-249,345	-234,880	-407,081	-576,851	-649,833	-593,555	-673,422
Annual Assessment	39,996	41,996	44,096	46,300	48,615	51,046	53,598	56,278	59,092	62,047
Interest Earned		296								
Expenditures	186,000		314,878	31,836	220,816	220,816	126,581		138,959	35,853
Fully Funded Reserves	2,915,361	3,129,439	3,037,850	3,236,471	3,250,181	3,268,332	3,387,570	3,641,964	3,763,935	3,997,331
Percent Fully Funded	-1%	1%	-8%	-7%	-13%	-18%	-19%	-16%	-18%	-16%
Ending Balance	-20,854	21,438	-249,345	-234,880	-407,081	-576,851	-649,833	-593,555	-673,422	-647,227
Description										
Access Keypad - Bldg. Mid-Rise #1			3,329							
Access Keypad - Bldg. Mid-Rise #2			4,994							
Awning - Replacements							33,785			
Brick Facade - Repairs, All Bldgs.			56,859							
Building - Carpet, Bldg. Mid-Rise #1										
Building - Carpet, Bldg. Mid-Rise #2										
Building - Wallpaper, Bldg. Mid-Rise #1										
Building - Wallpaper, Bldg. Mid-Rise #2										
Caulking - Exterior	100,000								117,166	
Comments	*Unfunded*									
Courtyard - Paver/Waterproofing System										
Deck - Replacements, Low-Rise & Townhouses							25,226			
EFIS - Repairs/Replacements	10,000						11,262			
Elevators - Cab refurbishment, Bldg. Mid-Rise ..									7,264	
Elevators - Cab refurbishment, Bldg. Mid-Rise ..									14,529	
Elevators - Modernization, Bldg. Mid-Rise #1					108,243					
Elevators - Modernization, Bldg. Mid-Rise #2						220,816				
Equipment - Air Handlers, Bldg. Mid-Rise #1			83,232							
Equipment - Air Handlers, Bldg. Mid-Rise #2			166,464							
Equipment - Back-Up Generator										
Equipment - Boiler, Replacements					82,265					
Equipment - Fire Control Panel, Replacements	44,000									
Equipment - Garage, Exhaust Fan	8,000									
Equipment - Hot Water Storage, Replacement							56,308			
Equipment - Trash Compactor, Bldg. Mid-Rise ..					15,154					
Equipment - Trash Compactor, Bldg. Mid-Rise ..					15,154					

Sample
MCA Current Assessment Spread Sheet

Description	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Equipment - Waste Caddy										
Garage Door - Replacements, Underground Par..	24,000									
Green House Window - Replacements										
Metal Railing - Replacements, All Bldgs.										
Patio Fence - Replacements (Wood)										
Roof - Flat, Membrane, Low-Rise #1 & #2										
Roof - Flat, Membrane, Mid-Rise #1										
Roof - Flat, Membrane, Mid-Rise #2										
Roof - Flat, Membrane, Townhouse #1-#3										
Roofs - Asphalt Shingle, Low-Rise #1 & #2										
Roofs - Asphalt Shingle, Townhouse #1- #3										
Siding/Trim - Wood Replacements				31,836						35,853
Year Total:	**186,000**		**314,878**	**31,836**	**220,816**	**220,816**	**126,581**		**138,959**	**35,853**

Sample
MCA Current Assessment Spread Sheet

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Beginning Balance	-647,227	-775,017	-706,610	-1,763,324	-4,509,585	-4,430,396	-4,387,623	-4,443,087	-4,351,415	-4,269,442
Annual Assessment	65,149	68,407	71,827	75,418	79,189	83,149	87,306	91,672	96,255	101,068
Interest Earned										
Expenditures	192,939		1,128,541	2,821,679		40,376	142,770		14,282	
Fully Funded Reserves	4,079,060	4,363,194	3,507,053	912,698	1,148,840	1,352,880	1,461,004	1,721,449	1,977,160	2,257,270
Percent Fully Funded	-19%	-16%	-50%	-494%	-386%	-324%	-304%	-253%	-216%	-185%
Ending Balance	-775,017	-706,610	-1,763,324	-4,509,585	-4,430,396	-4,387,623	-4,443,087	-4,351,415	-4,269,442	-4,168,374
Description										
Access Keypad - Bldg. Mid-Rise #1										
Access Keypad - Bldg. Mid-Rise #2										
Awning - Replacements										
Brick Facade - Repairs, All Bldgs.			69,311							
Building - Carpet, Bldg. Mid-Rise #1	13,831									
Building - Carpet, Bldg. Mid-Rise #2	39,905									
Building - Wallpaper, Bldg. Mid-Rise #1	39,280									
Building - Wallpaper, Bldg. Mid-Rise #2	99,923									
Caulking - Exterior							137,279			
Comments	*Unfunded*									
Courtyard - Paver/Waterproofing System				2,821,679						
Deck - Replacements, Low-Rise & Townhouses										
EFIS - Repairs/Replacements			12,682						14,282	
Elevators - Cab refurbishment, Bldg. Mid-Rise ..										
Elevators - Cab refurbishment, Bldg. Mid-Rise ..										
Elevators - Modernization, Bldg. Mid-Rise #1										
Elevators - Modernization, Bldg. Mid-Rise #2										
Equipment - Air Handlers, Bldg. Mid-Rise #1										
Equipment - Air Handlers, Bldg. Mid-Rise #2										
Equipment - Back-Up Generator			83,704							
Equipment - Boiler, Replacements										
Equipment - Fire Control Panel, Replacements										
Equipment - Garage, Exhaust Fan										
Equipment - Hot Water Storage, Replacement										
Equipment - Trash Compactor, Bldg. Mid-Rise ..										
Equipment - Trash Compactor, Bldg. Mid-Rise ..										

Sample
MCA Current Assessment Spread Sheet

Description	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Equipment - Waste Caddy							5,491			
Garage Door - Replacements, Underground Par..										
Green House Window - Replacements			129,868							
Metal Railing - Replacements, All Bldgs.			55,199							
Patio Fence - Replacements (Wood)										
Roof - Flat, Membrane, Low-Rise #1 & #2			152,788							
Roof - Flat, Membrane, Mid-Rise #1			128,011							
Roof - Flat, Membrane, Mid-Rise #2			249,103							
Roof - Flat, Membrane, Townhouse #1-#3			247,875							
Roofs - Asphalt Shingle, Low-Rise #1 & #2										
Roofs - Asphalt Shingle, Townhouse #1- #3										
Siding/Trim - Wood Replacements						40,376				
Year Total:	**192,939**		**1,128,541**	**2,821,679**		**40,376**	**142,770**		**14,282**	

Sample
AnyCity, AnyState
MCA Recommended Assessment Funding Model Summary (Cash Flow)

Report Date	January 1, 2019
Account Number	Sample
Version	1
Budget Year Beginning	January 1, 2019
Budget Year Ending	December 31, 2019
Total Units	100
Phase Development	1 of 1

Report Parameters

Inflation	2.00%
Interest Rate on Reserve Deposit	2.00%
Tax Rate on Interest	30.00%
Contingency	1.00%
2019 Beginning Balance	$125,150

Sample is located in AnyCity AnyState the property consists of 100 residential unit.

For budgeting purposes Michael Callahan & Associates, LLC. will use January, 1 1991 for all original components. Components replaced since original will be noted throughout the report with the placed-in-service replacement date or an estimated replacement date.

The Official Michael Callahan & Associates, LLC. visual on-site-inspection was performed on March, 5 2018.

The detail section of this reserve study will have information on all assets included in this report. Some assets may be listed for inventory purposes only.

The anticipated reserve fund balance is based on current reserve fund & contribution information that was provided to MCA, LLC. by the client.

Fiscal Year January, 1 2019 Beginning Balance: $125,150

Recommended Assessment Funding Model. This model type is also referred to as a Cash Flow model or Statutory Funding model. This analysis is based on the a recommended annual assessment, parameters, and the current reserve fund balance. Because It is calculated using a recommended annual assessment, it will give an accurate projection of how well the association is funded for the next 20 years of planned reserve expenditures.

Asset repair & replacement costs are estimates based on National Data, Local Contractors, provided bid proposals from the client, and actual costs provided by the client.

Recommended Assessment Funding Summary of Calculations

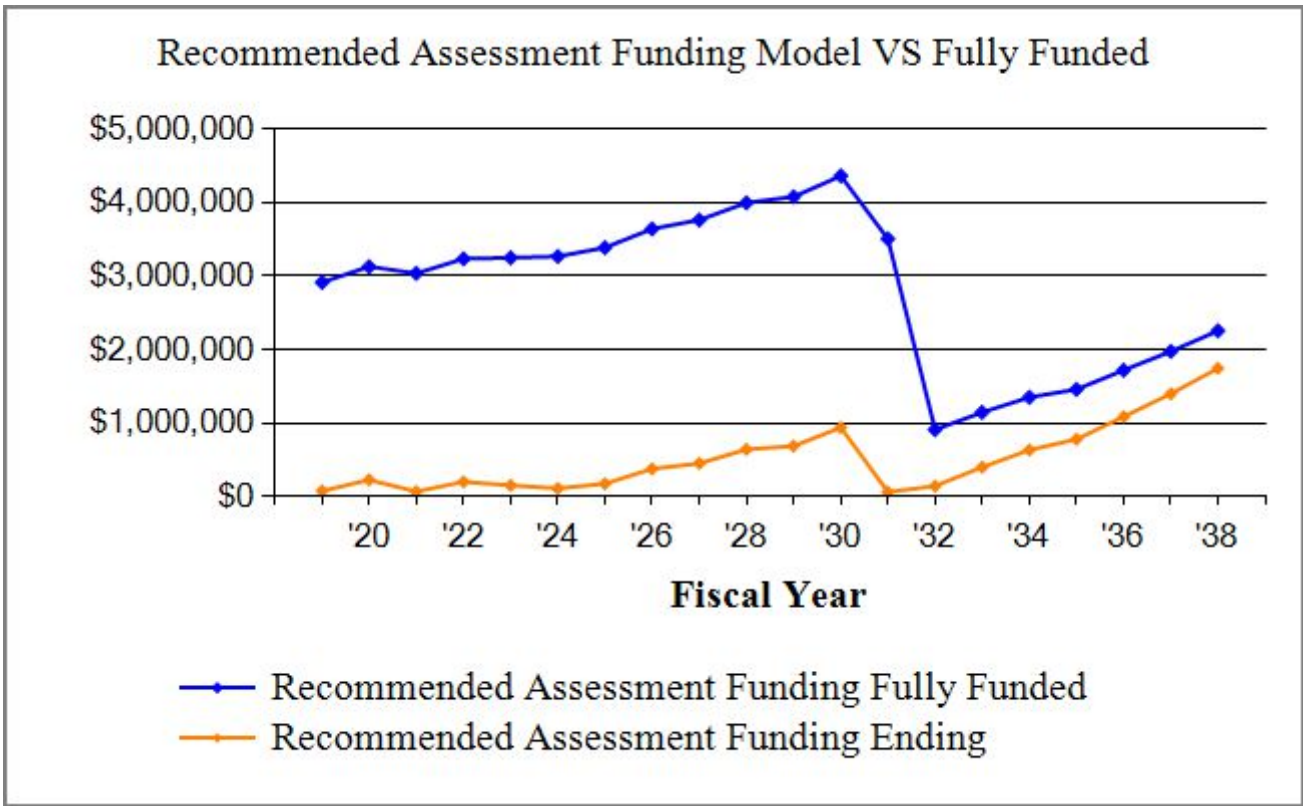
Required Annual Contribution	$140,000.00
$1,400.00 per unit annually	
Average Net Annual Interest Earned	$1,108.10
Total Annual Allocation to Reserves	$141,108.10
$1,411.08 per unit annually	

Sample
MCA Recommended Assessment Funding Model Projection

Beginning Balance: $125,150

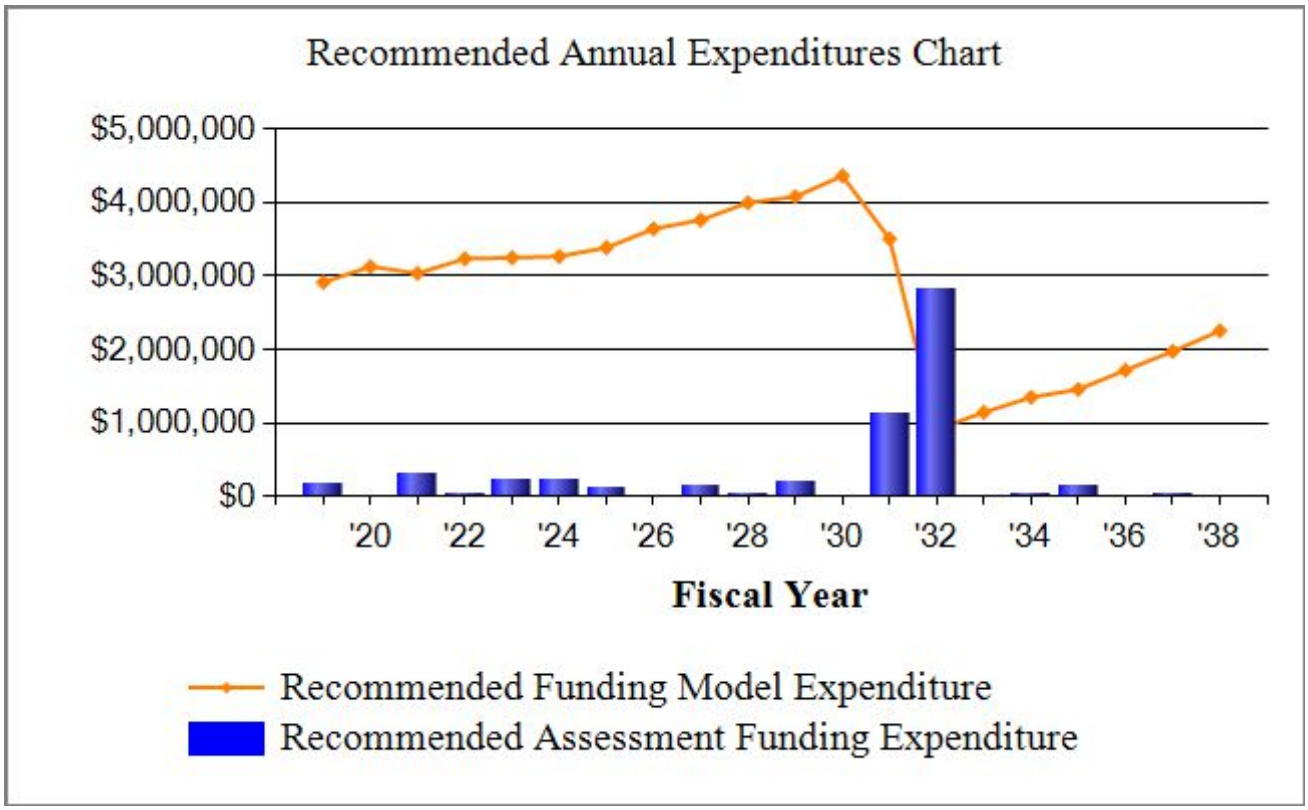
Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2019	4,288,774	140,000	1,108	186,000	80,258	2,915,361	3%
2020	4,374,549	147,000	3,182		230,440	3,129,439	7%
2021	4,462,040	154,350	979	314,878	70,891	3,037,850	2%
2022	4,551,281	162,067	2,816	31,836	203,937	3,236,471	6%
2023	4,642,307	170,171	2,146	220,816	155,438	3,250,181	5%
2024	4,735,153	178,679	1,586	220,816	114,888	3,268,332	4%
2025	4,829,856	187,613	2,463	126,581	178,383	3,387,570	5%
2026	4,926,453	196,994	5,255		380,633	3,641,964	10%
2027	5,024,982	206,844	6,279	138,959	454,797	3,763,935	12%
2028	5,125,482	217,186	8,906	35,853	645,036	3,997,331	16%
2029	5,227,991	228,045	9,522	192,939	689,664	4,079,060	17%
2030	5,332,551	239,448	13,008		942,119	4,363,194	22%
2031	5,439,202	251,420	910	1,128,541	65,908	3,507,053	2%
2032	5,547,986	2,900,000	2,019	2,821,679	146,248	912,698	16%
2033	5,658,946	252,000	5,575		403,824	1,148,840	35%
2034	5,772,125	264,600	8,793	40,376	636,840	1,352,880	47%
2035	5,887,567	277,830	10,807	142,770	782,707	1,461,004	54%
2036	6,005,319	291,721	15,042		1,089,471	1,721,449	63%
2037	6,125,425	306,308	19,341	14,282	1,400,837	1,977,160	71%
2038	6,247,934	321,623	24,114		1,746,574	2,257,270	77%

Sample
MCA Recommended Assessment Funding Model VS Fully Funded



The Recommended Assessment Funding Model is based on a (directed) annual assessment, parameters, and reserve fund balance. Because it is calculated using a (directed) annual assessment, it will give the accurate projection of how well the association will be funded over the projected years of planned reserve expenditures.

Sample
MCA Recommended Assessment Annual Expenditure Chart



Sample
MCA Recommended Expenditure Spread Sheet

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Beginning Balance	125,150	80,258	230,440	70,891	203,937	155,438	114,888	178,383	380,633	454,797
Annual Assessment	140,000	147,000	154,350	162,067	170,171	178,679	187,613	196,994	206,844	217,186
Interest Earned	1,108	3,182	979	2,816	2,146	1,586	2,463	5,255	6,279	8,906
Expenditures	186,000		314,878	31,836	220,816	220,816	126,581		138,959	35,853
Fully Funded Reserves	2,915,361	3,129,439	3,037,850	3,236,471	3,250,181	3,268,332	3,387,570	3,641,964	3,763,935	3,997,331
Percent Fully Funded	3%	7%	2%	6%	5%	4%	5%	10%	12%	16%
Ending Balance	80,258	230,440	70,891	203,937	155,438	114,888	178,383	380,633	454,797	645,036
Description										
Access Keypad - Bldg. Mid-Rise #1			3,329							
Access Keypad - Bldg. Mid-Rise #2			4,994							
Awning - Replacements							33,785			
Brick Facade - Repairs, All Bldgs.			56,859							
Building - Carpet, Bldg. Mid-Rise #1										
Building - Carpet, Bldg. Mid-Rise #2										
Building - Wallpaper, Bldg. Mid-Rise #1										
Building - Wallpaper, Bldg. Mid-Rise #2										
Caulking - Exterior	100,000								117,166	
Comments	*Unfunded*									
Courtyard - Paver/Waterproofing System										
Deck - Replacements, Low-Rise & Townhouses							25,226			
EFIS - Repairs/Replacements	10,000						11,262			
Elevators - Cab refurbishment, Bldg. Mid-Rise ..									7,264	
Elevators - Cab refurbishment, Bldg. Mid-Rise ..									14,529	
Elevators - Modernization, Bldg. Mid-Rise #1					108,243					
Elevators - Modernization, Bldg. Mid-Rise #2						220,816				
Equipment - Air Handlers, Bldg. Mid-Rise #1			83,232							
Equipment - Air Handlers, Bldg. Mid-Rise #2			166,464							
Equipment - Back-Up Generator										
Equipment - Boiler, Replacements					82,265					
Equipment - Fire Control Panel, Replacements	44,000									
Equipment - Garage, Exhaust Fan	8,000									
Equipment - Hot Water Storage, Replacement							56,308			
Equipment - Trash Compactor, Bldg. Mid-Rise ..					15,154					
Equipment - Trash Compactor, Bldg. Mid-Rise ..					15,154					

Sample
MCA Recommended Expenditure Spread Sheet

Description	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Equipment - Waste Caddy										
Garage Door - Replacements, Underground Par..	24,000									
Green House Window - Replacements										
Metal Railing - Replacements, All Bldgs.										
Patio Fence - Replacements (Wood)										
Roof - Flat, Membrane, Low-Rise #1 & #2										
Roof - Flat, Membrane, Mid-Rise #1										
Roof - Flat, Membrane, Mid-Rise #2										
Roof - Flat, Membrane, Townhouse #1-#3										
Roofs - Asphalt Shingle, Low-Rise #1 & #2										
Roofs - Asphalt Shingle, Townhouse #1- #3										
Siding/Trim - Wood Replacements				31,836						35,853
Year Total:	**186,000**		**314,878**	**31,836**	**220,816**	**220,816**	**126,581**		**138,959**	**35,853**

Sample
MCA Recommended Expenditure Spread Sheet

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Beginning Balance	645,036	689,664	942,119	65,908	146,248	403,824	636,840	782,707	1,089,471	1,400,837
Annual Assessment	228,045	239,448	251,420	2,900,000	252,000	264,600	277,830	291,721	306,308	321,623
Interest Earned	9,522	13,008	910	2,019	5,575	8,793	10,807	15,042	19,341	24,114
Expenditures	192,939		1,128,541	2,821,679		40,376	142,770		14,282	
Fully Funded Reserves	4,079,060	4,363,194	3,507,053	912,698	1,148,840	1,352,880	1,461,004	1,721,449	1,977,160	2,257,270
Percent Fully Funded	17%	22%	2%	16%	35%	47%	54%	63%	71%	77%
Ending Balance	689,664	942,119	65,908	146,248	403,824	636,840	782,707	1,089,471	1,400,837	1,746,574
Description										
Access Keypad - Bldg. Mid-Rise #1										
Access Keypad - Bldg. Mid-Rise #2										
Awning - Replacements										
Brick Facade - Repairs, All Bldgs.			69,311							
Building - Carpet, Bldg. Mid-Rise #1	13,831									
Building - Carpet, Bldg. Mid-Rise #2	39,905									
Building - Wallpaper, Bldg. Mid-Rise #1	39,280									
Building - Wallpaper, Bldg. Mid-Rise #2	99,923									
Caulking - Exterior							137,279			
Comments	*Unfunded*									
Courtyard - Paver/Waterproofing System				2,821,679						
Deck - Replacements, Low-Rise & Townhouses										
EFIS - Repairs/Replacements			12,682						14,282	
Elevators - Cab refurbishment, Bldg. Mid-Rise ..										
Elevators - Cab refurbishment, Bldg. Mid-Rise ..										
Elevators - Modernization, Bldg. Mid-Rise #1										
Elevators - Modernization, Bldg. Mid-Rise #2										
Equipment - Air Handlers, Bldg. Mid-Rise #1										
Equipment - Air Handlers, Bldg. Mid-Rise #2										
Equipment - Back-Up Generator			83,704							
Equipment - Boiler, Replacements										
Equipment - Fire Control Panel, Replacements										
Equipment - Garage, Exhaust Fan										
Equipment - Hot Water Storage, Replacement										
Equipment - Trash Compactor, Bldg. Mid-Rise ..										
Equipment - Trash Compactor, Bldg. Mid-Rise ..										

Sample
MCA Recommended Expenditure Spread Sheet

Description	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Equipment - Waste Caddy							5,491			
Garage Door - Replacements, Underground Par..										
Green House Window - Replacements			129,868							
Metal Railing - Replacements, All Bldgs.			55,199							
Patio Fence - Replacements (Wood)										
Roof - Flat, Membrane, Low-Rise #1 & #2			152,788							
Roof - Flat, Membrane, Mid-Rise #1			128,011							
Roof - Flat, Membrane, Mid-Rise #2			249,103							
Roof - Flat, Membrane, Townhouse #1-#3			247,875							
Roofs - Asphalt Shingle, Low-Rise #1 & #2										
Roofs - Asphalt Shingle, Townhouse #1- #3										
Siding/Trim - Wood Replacements						40,376				
Year Total:	**192,939**		**1,128,541**	**2,821,679**		**40,376**	**142,770**		**14,282**	

Sample
MCA Distribution of Accumulated Reserves

Description	Remaining Life	Replacement Year	Assigned Reserves	Fully Funded Reserves
Equipment - Garage, Exhaust Fan	0	2019	8,000	8,000
EFIS - Repairs/Replacements	0	2019	10,000	10,000
Garage Door - Replacements, Underground ..	0	2019	24,000	24,000
Equipment - Fire Control Panel, Replacements	0	2019	44,000	44,000
Caulking - Exterior	0	2019	* 79,146	100,000
Access Keypad - Bldg. Mid-Rise #1	2	2021		2,987
Access Keypad - Bldg. Mid-Rise #2	2	2021		4,480
Brick Facade - Repairs, All Bldgs.	2	2021		51,007
Equipment - Air Handlers, Bldg. Mid-Rise #1	2	2021		74,667
Equipment - Air Handlers, Bldg. Mid-Rise #2	2	2021		149,333
Siding/Trim - Wood Replacements	3	2022		15,000
Equipment - Trash Compactor, Bldg. Mid-Ri..	4	2023		12,250
Equipment - Trash Compactor, Bldg. Mid-Ri..	4	2023		12,250
Equipment - Boiler, Replacements	4	2023		66,500
Elevators - Modernization, Bldg. Mid-Rise #1	4	2023		87,500
Elevators - Modernization, Bldg. Mid-Rise #2	5	2024		169,697
Deck - Replacements, Low-Rise & Townhou..	6	2025		18,447
Awning - Replacements	6	2025		24,706
Equipment - Hot Water Storage, Replacement	6	2025		41,176
Elevators - Cab refurbishment, Bldg. Mid-Ri..	8	2027		4,822
Elevators - Cab refurbishment, Bldg. Mid-Ri..	8	2027		9,644
Building - Carpet, Bldg. Mid-Rise #1	10	2029		5,043
Building - Wallpaper, Bldg. Mid-Rise #1	10	2029		14,321
Building - Carpet, Bldg. Mid-Rise #2	10	2029		14,549
Building - Wallpaper, Bldg. Mid-Rise #2	10	2029		36,432
Metal Railing - Replacements, All Bldgs.	12	2031		30,467
Roof - Flat, Membrane, Mid-Rise #1	12	2031		40,374
Equipment - Back-Up Generator	12	2031		46,200
Roof - Flat, Membrane, Low-Rise #1 & #2	12	2031		48,189
Green House Window - Replacements	12	2031		71,680
Roof - Flat, Membrane, Townhouse #1-#3	12	2031		78,179
Roof - Flat, Membrane, Mid-Rise #2	12	2031		78,566
Courtyard - Paver/Waterproofing System	13	2032		1,489,634
Equipment - Waste Caddy	16	2035		800
Roofs - Asphalt Shingle, Low-Rise #1 & #2	22	2041		2,560
Roofs - Asphalt Shingle, Townhouse #1- #3	22	2041		3,413
Patio Fence - Replacements (Wood)	28	2047		3,600
Comments		Unfunded		

Sample
MCA Distribution of Accumulated Reserves

Description	Remaining Life	Replacement Year	Assigned Reserves	Fully Funded Reserves
Total Asset Summary			$165,146	$2,894,476

Percent Fully Funded	6%
Current Average Liability per Unit (Total Units: 100)	-$27,293

'' Indicates Partially Funded*

Sample
MCA Annual Expenditure Detail

Description	Expenditures
Replacement Year 2019	
Caulking - Exterior	100,000
EFIS - Repairs/Replacements	10,000
Equipment - Fire Control Panel, Replacements	44,000
Equipment - Garage, Exhaust Fan	8,000
Garage Door - Replacements, Underground Parking	24,000
Total for 2019	**$186,000**
No Replacement in 2020	
Replacement Year 2021	
Access Keypad - Bldg. Mid-Rise #1	3,329
Access Keypad - Bldg. Mid-Rise #2	4,994
Brick Facade - Repairs, All Bldgs.	56,859
Equipment - Air Handlers, Bldg. Mid-Rise #1	83,232
Equipment - Air Handlers, Bldg. Mid-Rise #2	166,464
Total for 2021	**$314,878**
Replacement Year 2022	
Siding/Trim - Wood Replacements	31,836
Total for 2022	**$31,836**
Replacement Year 2023	
Elevators - Modernization, Bldg. Mid-Rise #1	108,243
Equipment - Boiler, Replacements	82,265
Equipment - Trash Compactor, Bldg. Mid-Rise #1	15,154
Equipment - Trash Compactor, Bldg. Mid-Rise #2	15,154
Total for 2023	**$220,816**
Replacement Year 2024	
Elevators - Modernization, Bldg. Mid-Rise #2	220,816
Total for 2024	**$220,816**
Replacement Year 2025	
Awning - Replacements	33,785
Deck - Replacements, Low-Rise & Townhouses	25,226
EFIS - Repairs/Replacements	11,262
Equipment - Hot Water Storage, Replacement	56,308
Total for 2025	**$126,581**

Sample
MCA Annual Expenditure Detail

Description	Expenditures
No Replacement in 2026	
Replacement Year 2027	
Caulking - Exterior	117,166
Elevators - Cab refurbishment, Bldg. Mid-Rise #1	7,264
Elevators - Cab refurbishment, Bldg. Mid-Rise #2	14,529
Total for 2027	**$138,959**
Replacement Year 2028	
Siding/Trim - Wood Replacements	35,853
Total for 2028	**$35,853**
Replacement Year 2029	
Building - Carpet, Bldg. Mid-Rise #1	13,831
Building - Carpet, Bldg. Mid-Rise #2	39,905
Building - Wallpaper, Bldg. Mid-Rise #1	39,280
Building - Wallpaper, Bldg. Mid-Rise #2	99,923
Total for 2029	**$192,939**
No Replacement in 2030	
Replacement Year 2031	
Brick Facade - Repairs, All Bldgs.	69,311
EFIS - Repairs/Replacements	12,682
Equipment - Back-Up Generator	83,704
Green House Window - Replacements	129,868
Metal Railing - Replacements, All Bldgs.	55,199
Roof - Flat, Membrane, Low-Rise #1 & #2	152,788
Roof - Flat, Membrane, Mid-Rise #1	128,011
Roof - Flat, Membrane, Mid-Rise #2	249,103
Roof - Flat, Membrane, Townhouse #1-#3	247,875
Total for 2031	**$1,128,541**
Replacement Year 2032	
Courtyard - Paver/Waterproofing System	2,821,679
Total for 2032	**$2,821,679**
No Replacement in 2033	

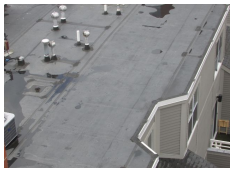
Sample
MCA Annual Expenditure Detail

Description	Expenditures
Replacement Year 2034	
Siding/Trim - Wood Replacements	40,376
Total for 2034	**$40,376**
Replacement Year 2035	
Caulking - Exterior	137,279
Equipment - Waste Caddy	5,491
Total for 2035	**$142,770**
No Replacement in 2036	
Replacement Year 2037	
EFIS - Repairs/Replacements	14,282
Total for 2037	**$14,282**

Roof - Flat, Membrane, Low-Rise #1 & #2 - 2031

		1 Total	@ $120,472.00
Asset ID	1155	Asset Cost	$120,472.00
		Percent Replacement	100%
	Roofing	Future Cost	$152,787.62
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	20		
Replacement Year	2031	Annual Assessment	$771.12
Remaining Life	12	Interest Contribution	$10.80
		Reserve Allocation	$781.92




5,476	- sq.ft. of rubber membrane roofing	@	$22.00 =	$120,472.00
			Total =	$120,472.00

Typically, flat rubber membrane roofs come with a 20yr. Limited Warranty.

Flat roof systems work by providing a waterproof membrane over a building. They consist of one or more layers of hydrophobic material placed over a structural deck with a vapor barrier typically placed between the deck and roof membrane. Flashing, thin strips of material such as copper, intersect with the membrane and other building components (such as parapet walls) to prevent water infiltration. Water is directed to drains, downspouts, and gutters by the slight pitch of the roof.

The work includes but is not limited to the installation of:

- Substrate Preparation
- Roof Drains
- Vapor Barrier
- Wood Blocking
- Insulation
- Separation Layers
- Roof Membrane
- Fasteners

Roof - Flat, Membrane, Low-Rise #1 & #2 continued...

- Adhesive for Flashings
- Roof Membrane Flashings
- Metal Flashings
- Sealant

Over-All:

The roof should be monitored/visual inspection twice a year. Once before the winter months and once after the winter months. Any noted 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 start, the Remaining Life of the roof should be adjusted accordingly.

The roofs house the condensing units for each individual residential unit and the common area air handler units (RTU). (See pictures)

Rubber Membrane roof maintenance (repairs) should be done by a professional roofer that has experience with both new roof appliations and repairing of rubber membrane roofs.

The most common repairs needed on a rubber membrane roof are lifting seams and actual damage to the rubber membrane. Other types of needed mainteance to a rubber roof is the sealant around protrusions in the roof such as vents, junction boxes, skylights, wires/cables, and roof top mechanicals.

Roof - Flat, Membrane, Mid-Rise #1 - 2031

		1 Total	@ $100,936.00
Asset ID	1054	Asset Cost	$100,936.00
		Percent Replacement	100%
	Roofing	Future Cost	$128,011.25
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	20		
Replacement Year	2031	Annual Assessment	$646.07
Remaining Life	12	Interest Contribution	$9.04
		Reserve Allocation	$655.12

Roof - Flat, Membrane, Mid-Rise #1 continued...



4,588 - sq.ft. of rubber membrane roofing (2 Chestnut)	@	$22.00 =	$100,936.00
		Total =	$100,936.00

Over-All:

The roof should be monitored/visual inspection twice a year. Once before the winter months and once after the winter months. Any noted 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 start, the Remaining Life of the roof should be adjusted accordingly.

The roof houses the RTU HVAC Air Handler for the common area hallways. The roof also houses the condensing units for each individual residential unit. (See pictures)

Water ponding is an issue due to the location and amount of condensing units on the roof. The condensing units, and service lines to each condensing unit could use some re-installing (upgrades/updating). Moving the condensing units, setting up an organized line up of the units would helpe prevent wate rponding which can lead to roof leaks. (See pictures)

Roof - Flat, Membrane, Mid-Rise #2 - 2031

		1 Total	@ $196,416.00
Asset ID	1154	Asset Cost	$196,416.00
		Percent Replacement	100%
	Roofing	Future Cost	$249,102.98
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	20		
Replacement Year	2031	Annual Assessment	$1,257.22
Remaining Life	12	Interest Contribution	$17.60
		Reserve Allocation	$1,274.82

Roof - Flat, Membrane, Mid-Rise #2 continued...

8,928 - sq.ft. of rubber membrane roofing (20 Chestnut)	@	$22.00 =	$196,416.00
		Total =	$196,416.00

Over-All:

The roof should be monitored/visual inspection twice a year. Once before the winter months and once after the winter months. Any noted 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 start, the Remaining Life of the roof should be adjusted accordingly.

The roof houses the RTU HVAC Air Handler for the common area hallways. The roof also houses the condensing units for each individual residential unit. (See pictures)

Water ponding is an issue due to the location and amount of condensing units on the roof. The condensing units, and service lines to each condensing unit could use some re-installing (upgrades/updating). Moving the condensing units, setting up an organized line up of the units would help prevent water ponding which can lead to roof leaks. (See pictures)

Roof - Flat, Membrane, Townhouse #1-#3 - 2031

		1 Total	@ $195,448.00
Asset ID	1156	Asset Cost	$195,448.00
		Percent Replacement	100%
	Roofing	Future Cost	$247,875.32
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	20		
Replacement Year	2031	Annual Assessment	$1,251.03
Remaining Life	12	Interest Contribution	$17.51
		Reserve Allocation	$1,268.54

Roof - Flat, Membrane, Townhouse #1-#3 continued...



8,884 - sq.ft. of rubber membrane	@	$22.00 =	$195,448.00
		Total =	$195448.00

Over-All:

The roof should be monitored/visual inspection twice a year. Once before the winter months and once after the winter months. Any noted 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 start, the Remaining Life of the roof should be adjusted accordingly.

The roofs house the condensing units for each individual residential unit. (See pictures)

Roofs - Asphalt Shingle, Low-Rise #1 & #2 - 2041

		1 Total	@ $9,600.00
Asset ID	1151	Asset Cost	$9,600.00
		Percent Replacement	100%
	Roofing	Future Cost	$14,841.40
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	30		
Replacement Year	2041	Annual Assessment	$38.01
Remaining Life	22	Interest Contribution	$0.53
		Reserve Allocation	$38.54

Roofs - Asphalt Shingle, Low-Rise #1 & #2 continued...

The estimated cost used is for a quality 25-30 year rated asphalt composition shingle, all new underlayment, flashing and drip edge. A provision should be included in any work contract for the replacement of sheathing. Most likely some of the sheathing will require replacement. However, until the roofing system is removed from the roof deck it is next to impossible to know how much if any of the sheathing will require replacement.

1,200 - sq.ft. of asphalt roofing	@	8.00 =	9,600.00
		Total =	$9,600.00

Roofing Specifications: Suggestions:

- All work to be performed shall be done in a manner consistent with generally accepted building practices and shall meet or exceed the state building codes.

Roofing:

- 25-30 Year rated Architectural Asphalt Composition Shingle (chemical treated)

- Roofing paper to be a Gracie Triflex style synthetic roofing paper

- All eaves to have at least 6' of Ice & Shield

- All valleys to have Ice & Shield

- All transistion areas to have Ice & Shield applied the entire length of the transition area

- All new ventilation installed

- All flashing to be replaced

- All drip edge to be replaced

A new properly installed roof will greatly reduce potential leaking issues and damage to the building. Not only is a new roof a protective measure against damage to the building, it can also increase the value of the building and each individual unit. It is a fact that buildings in a good state of repair have a much higher value rate then those with out dated, failing components.

Asphalt Shingle roof maintenance should be minimal. Lifting, shifting or missing shingles will require re-setting and replacement. Replacing a damaged shingle that is lifting, shifting or even missing is actually a pretty easy task. The shingle(s) about the damaged area have to lifted up

Roofs - Asphalt Shingle, Low-Rise #1 & #2 continued...

in order to removal the old damaged shingle or to get to the missing shingle location. A new shingle(s) is layed in the area and nailed in place. The new shingle(s) should line up with the other shingles at the properly exposure distance.

Repairs and Maintenance issues should be addressed by a professional roofer.

Roofs - Asphalt Shingle, Townhouse #1- #3 - 2041

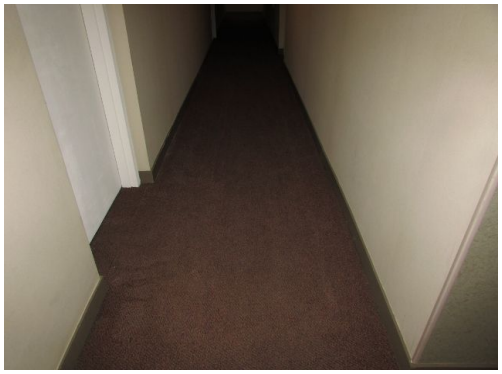
		1 Total	@ $12,800.00
Asset ID	1157	Asset Cost	$12,800.00
		Percent Replacement	100%
	Roofing	Future Cost	$19,788.54
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	30		
Replacement Year	2041	Annual Assessment	$50.68
Remaining Life	22	Interest Contribution	$0.71
		Reserve Allocation	$51.39

1,600 - sq.ft. of asphalt roofing	@	$8.00 =	$12,800.00
		Total =	$12,800.00

Roofing - Total Current Cost	**$635,672**
Assigned Reserves	**$0**
Fully Funded Reserves	**$251,282**

Building - Carpet, Bldg. Mid-Rise #1 - 2029

		1 Total	@ $11,346.00
Asset ID	1093	Asset Cost	$11,346.00
		Percent Replacement	100%
	Interior Furnishings	Future Cost	$13,830.71
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	18		
Replacement Year	2029	Annual Assessment	$84.97
Remaining Life	10	Interest Contribution	$1.19
		Reserve Allocation	$86.16



183 - sq.yds. of carpet @ $62.00 = $11,346.00

Total = $11,346.00

Building - Carpet, Bldg. Mid-Rise #2 - 2029

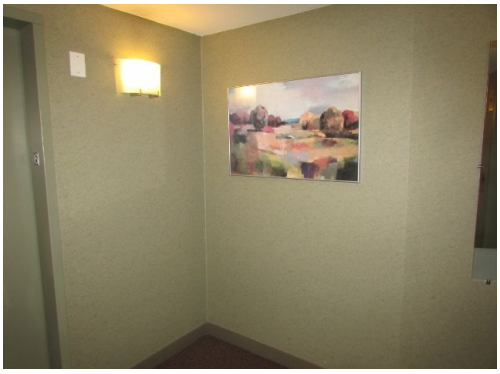
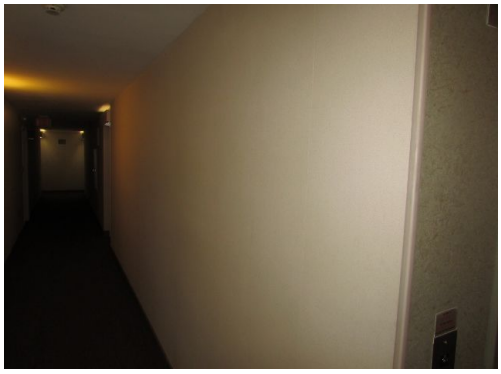
		1 Total	@ $32,736.00
Asset ID	1158	Asset Cost	$32,736.00
		Percent Replacement	100%
	Interior Furnishings	Future Cost	$39,905.00
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	18		
Replacement Year	2029	Annual Assessment	$245.15
Remaining Life	10	Interest Contribution	$3.43
		Reserve Allocation	$248.58

Building - Carpet, Bldg. Mid-Rise #2 continued...


528 - sq.yds. of carpet @ $62.00 = $32,736.00
Total = $32,736.00

Building - Wallpaper, Bldg. Mid-Rise #1 - 2029

		1 Total	@ $32,223.00
Asset ID	1102	Asset Cost	$32,223.00
		Percent Replacement	100%
	Interior Furnishings	Future Cost	$39,279.66
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	18		
Replacement Year	2029	Annual Assessment	$241.31
Remaining Life	10	Interest Contribution	$3.38
		Reserve Allocation	$244.69

5,604 - sq.ft. of wallpaper @ $5.75 = $32,223.00
Total = $32,223.00

Sample
MCA Detail Report by Category

Building - Wallpaper, Bldg. Mid-Rise #2 - 2029

		1 Total	@ $81,972.00
Asset ID	1159	Asset Cost	$81,972.00
		Percent Replacement	100%
	Interior Furnishings	Future Cost	$99,923.41
Placed in Service	January 2011	Assigned Reserves	*none*
Useful Life	18		
Replacement Year	2029	Annual Assessment	$613.87
Remaining Life	10	Interest Contribution	$8.59
		Reserve Allocation	$622.46

14,256 - sq.ft. of wallpaper	@	$5.75 =	$81,972.00
		Total =	$81,972.00

Interior Furnishings - Total Current Cost	**$158,277**
Assigned Reserves	**$0**
Fully Funded Reserves	**$70,345**

Access Keypad - Bldg. Mid-Rise #1 - 2021

		1 Total	@ $3,200.00
Asset ID	1171	Asset Cost	$3,200.00
		Percent Replacement	100%
	Equipment	Future Cost	$3,329.28
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Replacement Year	2021	Annual Assessment	$108.20
Remaining Life	2	Interest Contribution	$1.51
		Reserve Allocation	$109.71

1 - access keypad	@ $3,200.00 =	$3,200.00
	Total =	$3,200.00

This line item is for the replacement of the main entrance access keypad only. It does not include any other part of the intercom/access system.

Access Keypad - Bldg. Mid-Rise #2 - 2021

		1 Total	@ $4,800.00
Asset ID	1172	Asset Cost	$4,800.00
		Percent Replacement	100%
	Equipment	Future Cost	$4,993.92
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Replacement Year	2021	Annual Assessment	$162.30
Remaining Life	2	Interest Contribution	$2.27
		Reserve Allocation	$164.57

Access Keypad - Bldg. Mid-Rise #2 continued...

1 - access keypad	@ $4,800.00 =	$4,800.00
	Total =	$4,800.00

This line item is for the replacement of the main entrance access keypad only. It does not include any other part of the intercom/access system.

Elevators - Cab refurbishment, Bldg. Mid-Rise #1 - 2027

		1 Total	@ $6,200.00
Asset ID	1110	Asset Cost	$6,200.00
		Percent Replacement	100%
	Equipment	Future Cost	$7,264.29
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	20		
Adjustment	16	Annual Assessment	$56.58
Replacement Year	2027	Interest Contribution	$0.79
Remaining Life	8	Reserve Allocation	$57.37

1 - cab	@ $6,200.00 =	$6,200.00
	Total =	$6,200.00

This line item is for the refurbishment of the elevator cabs. It would include the cosmetic

Elevators - Cab refurbishment, Bldg. Mid-Rise #1 continued...

refurbishment. It does not include any mechanicals.

Elevators - Cab refurbishment, Bldg. Mid-Rise #2 - 2027

		1 Total	@ $12,400.00
Asset ID	1161	Asset Cost	$12,400.00
		Percent Replacement	100%
	Equipment	Future Cost	$14,528.58
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	20		
Adjustment	16	Annual Assessment	$113.16
Replacement Year	2027	Interest Contribution	$1.58
Remaining Life	8	Reserve Allocation	$114.75

2 - cabs @ $6,200.00 = $12,400.00

Total = $12,400.00

This line item is for the refurbishment of the elevator cabs. It would include the cosmetic refurbishment. It does not include any mechanicals.

Elevators - Modernization, Bldg. Mid-Rise #1 - 2023

		1 Total	@ $100,000.00
Asset ID	1015	Asset Cost	$100,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$108,243.22
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Adjustment	2	Annual Assessment	$1,734.42
Replacement Year	2023	Interest Contribution	$24.28
Remaining Life	4	Reserve Allocation	$1,758.70

1 - elevator @ $100,000.00 = $100,000.00

Elevators - Modernization, Bldg. Mid-Rise #1 continued...

Total = $100,000.00

This could include new controls, software, doors, traction mechanicals, motors, and tracks.

There are many unknowns when it comes to needed elevator replacements. Elevators are tested annually and a load test every five years. Any failures would need to be addressed immediately. This line item is set as a scheduled modernization to the elevators. This funding can also be used for unforeseen needed repairs and/or replacements prior to the scheduled modernization.

Elevators - Modernization, Bldg. Mid-Rise #2 - 2024

		1 Total	@ $200,000.00
Asset ID	1163	Asset Cost	$200,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$220,816.16
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Adjustment	3	Annual Assessment	$2,810.77
Replacement Year	2024	Interest Contribution	$39.35
Remaining Life	5	Reserve Allocation	$2,850.12

2 - elevators @$100,000.00 = $200,000.00

Total = $100,000.00

Equipment - Air Handlers, Bldg. Mid-Rise #1 - 2021

		1 Total	@ $80,000.00
Asset ID	1113	Asset Cost	$80,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$83,232.00
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	20		
Adjustment	10	Annual Assessment	$2,704.92
Replacement Year	2021	Interest Contribution	$37.87
Remaining Life	2	Reserve Allocation	$2,742.79

1 - air handler	@$60,000.00 =	$60,000.00
1 - removal/install	@ 20,000.00 =	20,000.00
	Total =	$80,000.00

An air handler, is a device used to condition and circulate air as part of a heating, ventilating, and air-conditioning system. Usually, an air handler is a large metal box containing a blower, heating and/or cooling elements, filter racks or chambers, sound attenuators, and dampers. Air handlers usually connect to ductwork that distributes the conditioned air through the building, and returns it to the AHU. Sometimes AHUs discharge (supply) and admit (return) air directly to and from the space served, without ductwork.

Air handlers typically employ a large squirrel cage blower driven by an induction motor to move the air. The blower may operate at a single speed, offer a variety of pre-set speeds, or be driven by a variable drive so as to allow a wide range of air flow rates. Flow rate may also be controlled by inlet vanes or outlet dampers on the fan.

In large commercial air handling units, multiple blowers may be present, typically placed at the end of the AHU and the beginning of the supply ductwork (therefore also called "supply fans"). They are often augmented by fans in the return air duct ("return fans"), pushing the air into the AHU.

Depending on the location and the application, air handlers may need to provide heating, or cooling, or both to change the supply air temperature.

Large commercial air handling units contain coils that circulate hot water or steam for heating,

and chilled water for cooling. The hot water or steam is provided by a central boiler, and the chilled water is provided by a central chiller.

Air filtration is almost always present in order to provide clean dust-free air to the building occupants.

Humidification is often necessary in colder climates where continuous heating will make the air drier, resulting in uncomfortable air quality and increased static electricity. Various types of humidification may be used: -Evaporative: dry air blown over a reservoir will evaporate some of the water. The rate of evaporation can be increased by spraying the water onto baffles in the air stream.

-Vaporizer: steam or vapour from a boiler is blown directly into the air stream.

-Spray mist: water is diffused either by a nozzle or other mechanical means into fine droplets and carried by the air.

In order to maintain indoor air quality, air handlers commonly have provisions to allow the introduction of outside air into, and the exhausting of air from the building. In temperate climates, mixing the right amount of cooler outside air with warmer return air can be used to approach the desired supply air temperature. A mixing chamber is therefore used which has dampers controlling the ratio between the return, outside, and exhaust air. A heat recovery heat exchanger, of many types, may be fitted to the air handler for energy savings and increasing capacity.

Controls are necessary to regulate every aspect of an air handler, such as: rate of air flow, supply air temperature, mixed air temperature, humidity, air quality.

The blowers in an air handler can create substantial vibration and the large area of the duct system would transmit this noise and vibration to the occupants of the building. To avoid this, vibration isolators (flexible sections) are normally inserted into the duct immediately before and after the air handler and often also between the fan compartment and the rest of the AHU.

The mainteance of the AHU should be done on an 'as-needed' basis. The filters should be replaced as needed. Drive belts should be checked and replaced as needed. The drive bearings should be checked and either greased or replaced as needed.

If the unit is making noise other than air transfer noise when running this is a good indication that something is not working properly. Either a belt is loose or damaged, or a bearing is worn or not properly greased. If the motor is straining that is also an indication that maintenance is needed.

PM maintenance can help prevent major damage to the unit.

Sample
MCA Detail Report by Category

Equipment - Air Handlers, Bldg. Mid-Rise #2 - 2021

		1 Total	@ $160,000.00
Asset ID	1162	Asset Cost	$160,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$166,464.00
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	20		
Adjustment	10	Annual Assessment	$5,409.84
Replacement Year	2021	Interest Contribution	$75.74
Remaining Life	2	Reserve Allocation	$5,485.58

2 - air handler	@$60,000.00 =	$120,000.00
2 - removal/install	@ 20,000.00 =	40,000.00
	Total =	$160,000.00

Equipment - Back-Up Generator - 2031

		1 Total	@ $66,000.00
Asset ID	1114	Asset Cost	$66,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$83,703.96
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	40		
Replacement Year	2031	Annual Assessment	$422.45
Remaining Life	12	Interest Contribution	$5.91
		Reserve Allocation	$428.37

Equipment - Back-Up Generator continued...

1 - generator	@$60,000.00 =	$60,000.00
1 - removal/install	@ 6,000.00 =	6,000.00
	Total =	$66,000.00

The back up generator is on a start up/maintenance program. The back up generator will run for a short period of time in order to keep the moving parts well lubed. This start up maintenance will also indicate any other issues or needed PM servcing to the back up generator.

The back up generator should be on a maintenance program that addresses the replacement of the filters (fuel and oil), belts, filter, and plugs as-needed.

Equipment - Boiler, Replacements - 2023

Asset ID	1115	1 Total	@ $76,000.00
		Asset Cost	$76,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$82,264.84
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Adjustment	2	Annual Assessment	$1,318.16
Replacement Year	2023	Interest Contribution	$18.45
Remaining Life	4	Reserve Allocation	$1,336.62

Equipment - Boiler, Replacements continued...

The actual cost to replace these boilers will include a lot of demo, re-building, new plumbing and wiring in order to accomodate the new updated boiler system.

This line item is an estimate for the future replacement of the boilers only.

2 - boilers	@ 28,000.00 =	56,000.00
2 - removal/install	@ 10,000.00 =	20,000.00
	Total =	$76,000.00

• Make sure the shut off valves function properly. Check for water leakage. If there is any sign of potential leakage, have a leak test performed.

• Check for broken pieces or even cracks, and repair if needed.

• Check the functioning of controls, safety devices, and indicators, including the low-water cutoff devices and regulators, pressure gauge, safety valves, and the pressure release valve. Any that are not working properly puts the boiler at risk of major structural damage.

• Check your fuel feed system and burners, particularly if your boilers use liquid fuels. They should be inspected and cleaned. Not doing so will result in inefficient combustion and heat transfer, resulting in higher fuel costs and less effective heating. Related to this is to clean or replace any fuel filters so as to maintain effective fuel flow, without which damage could occur.

• Be sure to clean boiler heat transfer surfaces regularly to remove buildup. In the case of an oil-fired boiler, there may be soot residue. Soot can act as an insulator which cuts down on the efficiency of the heat transfer between combustion gas and steam or hot water generation.

When inspecting your boiler, remember to look for any signs of corrosion, overheating, or erosion, as well as any leaks from the boiler or external piping. These items can be signs that the boiler is not working properly and should be repaired immediately.

Factors that play a roll in boiler replacement needs:

Age, is a big factor when it comes to possible replacement of a boiler. Even if the boiler is still

Equipment - Boiler, Replacements continued...

working properly, ipgrading to a newer system can offer significant benefits. Less mainteance issues, easier to get parts, and greater efficency.

Energy Expenditures, at some point the cost to maintain and run an old boiler system will out-weigh the cost of buying a new system. Keep track of annual costs to maintain the older boiler system.

Increased failures, as the boiler system gets older the amount of service needs will increase.

Discoloration, yellow flames on gas burners and black soot on oil boilers indicate that the fuel is not burning properly and is creating carbon monoxide. It is highly recommended that property owners install carbon monoxide detectors.

Leaks, a boiler that leaks or requires additional make-up water could be nearing the end of its lifecycle. By replacing the existing unit, the building manager or owner can avoid costly floods and critical boiler or property damage.

Consistant, If you notice the setting needs to be adjusted in order to maintain the needed level of heat distribution or hot water distribution.

Quality, a upgrade to a newer more efficient system with better controls will pay for itself in no time. Not to mention the reduced down time and money spent each time the older system fails.

Equipment - Fire Control Panel, Replacements - 2019

		1 Total	@ $44,000.00
Asset ID	1016	Asset Cost	$44,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$44,000.00
Placed in Service	January 1991	Assigned Reserves	$44,000.00
Useful Life	20		
Replacement Year	2019	Annual Assessment	$186.89
Remaining Life	0	Interest Contribution	$2.62
		Reserve Allocation	$189.51

Equipment - Fire Control Panel, Replacements continued...


The estimated cost is for the replacement of the main fire control panel and software upgrade only. The estimated cost does not include any other part of the fire control system (pull stations, smoke detectors, emergency lights, valves, pumps, motors).

Fire control systems must always be kept in a good state of repair/working.

Testing is required. Any system failures would need to be addressed immediately.

2 - fire control panels (mid-rise #1 & #2)	@$22,000.00 =	$44,000.00
	Total =	$44,000.00

The fire control panels are testing along with the rest of the system. Any failure in the fire control panel will require immediate repair and/or replacement.

Equipment - Garage, Exhaust Fan - 2019

Asset ID	1173	1 Total	@ $8,000.00
		Asset Cost	$8,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$8,000.00
Placed in Service	January 1991	Assigned Reserves	$8,000.00
Useful Life	20		
Replacement Year	2019	Annual Assessment	$33.98
Remaining Life	0	Interest Contribution	$0.48
		Reserve Allocation	$34.46

Equipment - Garage, Exhaust Fan continued...

1 - exhaust fan	@ $8,000.00 =	$8,000.00
	Total =	$/8,000.00

Equipment - Hot Water Storage, Replacement - 2025

		1 Total	@ $50,000.00
Asset ID	1057	Asset Cost	$50,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$56,308.12
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Adjustment	4	Annual Assessment	$593.10
Replacement Year	2025	Interest Contribution	$8.30
Remaining Life	6	Reserve Allocation	$601.40

There is really no actual maintenance to the actual storage tank. Check sealed areas, supply and distribution pipes that are threaded into the storage tank for leaks. Any noted leaks should be addressed immediately. The bladder and actaul tank wall thinckness should be tested in order to make sure both are properly working and safe against possible leaking, cracking and major failures.

Equipment - Trash Compactor, Bldg. Mid-Rise #1 - 2023

		1 Total	@ $14,000.00
Asset ID	1127	Asset Cost	$14,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$15,154.05
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Adjustment	2	Annual Assessment	$242.82
Replacement Year	2023	Interest Contribution	$3.40
Remaining Life	4	Reserve Allocation	$246.22

1 - trash compactor	@$12,000.00 =	$12,000.00
1 - removal/install	@ 2,000.00 =	2,000.00
	Total =	$14,000.00

Rountine PM - Inspect nuts and bolts on a bi-monthly schedule. Check hydraulic oil reservoir for proper oil level with the cylinder fully retracted. Maintain proper oil level in the reservoir with a high quality all weather hydraulic oil. In addition, check for any leakage, kinks, or other damage to the hydraulic hoses and replace if necessary.

Check the power unit. Keep the power unit clean and free of debris in order to provide a clean airflow around the unit. Wipe all grease, dust, and dirt from the outside of the control box.

Check that all safety guards and access covers are secure and in the proper condition before operation.

Annual Compactor Maintenance - Have a licensed electrician inspect the electrical system. All electrical connections should be examined and the motor amp draw should be checked. Recording successive readings helps prevent future failures.

Maintain the hydraulic system. Drain and refill the reservoir with high quality all weather hydraulic fluid. Check all hoses and connections for leakage or wear and replace if necessary. Change the oil filter after the first 50 hours of operation and every 250 hours thereafter. Modify this schedule if the compactor operates in hot, dusty conditions.

Equipment - Trash Compactor, Bldg. Mid-Rise #2 - 2023

		1 Total	@ $14,000.00
Asset ID	1164	Asset Cost	$14,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$15,154.05
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Adjustment	2	Annual Assessment	$242.82
Replacement Year	2023	Interest Contribution	$3.40
Remaining Life	4	Reserve Allocation	$246.22

1 - trash compactor	@$12,000.00 =	$12,000.00
1 - removal/install	@ 2,000.00 =	2,000.00
	Total =	$14,000.00

Equipment - Waste Caddy - 2035

		1 Total	@ $4,000.00
Asset ID	1174	Asset Cost	$4,000.00
		Percent Replacement	100%
	Equipment	Future Cost	$5,491.14
Placed in Service	January 2015	Assigned Reserves	*none*
Useful Life	20		
Replacement Year	2035	Annual Assessment	$20.20
Remaining Life	16	Interest Contribution	$0.28
		Reserve Allocation	$20.48

Equipment - Waste Caddy continued...

Rountine PM - Make sure the battery pack is not leaking. Check battery connections for corrosion, clean if needed. Check wheel bearings for dirt, properly greased. Check controls to make sure all connections and functions are working properly.

Equipment - Total Current Cost	**$842,600**
Assigned Reserves	**$52,000**
Fully Funded Reserves	**$734,307**

Brick Facade - Repairs, All Bldgs. - 2021

		1 Total @	$1,821,696.00
Asset ID	1086	Asset Cost	$54,650.88
		Percent Replacement	3%
	Building Components	Future Cost	$56,858.78
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	10		
Adjustment	20	Annual Assessment	$1,847.83
Replacement Year	2021	Interest Contribution	$25.87
Remaining Life	2	Reserve Allocation	$1,873.70

56,928 - sq.ft. of brick surface @ $32.00 =$1,821,696.00
Total =$1,821,696.00

This line item is for the repointing of the brick siding (facade). The total sq.ft. is for the entire bldg.. A percent of the total brick area has been used for funding purposes (3%). This percent can be and should be adjusted accordingly over time based on the actual history of needed brick siding (facade) maintenance (repointing).

The Useful Life is set at 10yrs. with a 20yr. Remaining Life adjustment. This set up creates a first cycle of 30yrs. and then cycles of 10yrs for brick maintenance. Maintenance (repointing) for brick siding should be minimal during the first 30yrs.

Brick siding has several attractive qualities to it. It is made of fired clay which is water repellent, easy to maintain and available in hundreds of colors.

Brick siding is expected to last 100 years because it withstands most of the forces which deteriorate siding products. For the first 25-30 years you will enjoy maintenance free siding and after that amount of time limited maintenance is required.

Typical maintenance includes repairing loose joints between bricks because the brick will become brittle over time. This involves scraping out mortar between the bricks and replacing it with new grout in the joints. Unfortunately, this process is intensive and very costly. This process is called repointing. Other forms of maintenance include moss control and water sealing (caulking of the joints).

There are many factors that can cause damage to the brick siding:

- Brick areas that do not get enough sun can see moss/fungus growth if the areas are not

Brick Facade - Repairs, All Bldgs. continued...

powerwashed and treated on a regular set up cycle. Untreated areas of moss/fungus could see mortar failure. Once the mortar fails the potential for water leaks increases greatly, it can also be a safety hazard. Areas showing moss/fungus growth should be addressed immediately. A proper powerwashing, any needed repairs should be done followed by the application of a brick waterproofiing solution. This will help reduce the growth. Typically the waterproofing solution is only good for about 5 years so this should be set up on a cycle.

- Brick areas that get too much sun can also have issues. Too much sun can dry out the mortar over time causing it to crumble and become weak allowing water to get behind the brick siding. Again causing the same kinds of damage as mentioned above. The same type of repair solution is recommended.

- Some trouble spots beyond the location of the brick siding on a building are transition areas, window sills, door jams, and brick to brick connections. These areas should be monitored for any signs of damage.

Caulking - Exterior - 2019

		1 Total	@ $100,000.00
Asset ID	1167	Asset Cost	$100,000.00
		Percent Replacement	100%
	Building Components	Future Cost	$100,000.00
Placed in Service	January 2011	Assigned Reserves	$79,146.00
Useful Life	8		
Replacement Year	2019	Annual Assessment	$1,094.14
Remaining Life	0	Interest Contribution	$15.32
		Reserve Allocation	$1,109.46

This line item is for exterior caulking. Properly applied caulking keeps window, doors, sliding glass doors, building joints, and transition areas air/water tight. Typically, exterior caulking will last 6-10yrs depending on the quality of the caulking.

The caulking replacement is set up based on a dollar amount to address caulking of windows, doors, sliding glass doors, building joints, and transition areas. The Useful Life cycle has been

Caulking - Exterior continued...

set at 8yrs.

There are signs of dried out caulking, peeling back and gaps in the caulking.

The old caulking most be completely removed from the joint/area to be re-caulked. The area also needs to be cleaned of all debris/dirt in order for the new caulking to seal completely and correctly. Never use water to clean the areas, always use pressured air to clean out any area to be caulked.

MCA was informed that leaking around the greenhouse windows, sliding glass doors, and possible windows leaks have been an on-going issue and causing water intrusion.

Exterior caulking of joints, transition areas, window frames, door frames, and roof top protrusions is meant to keep the building both air and water tight in these areas. Caulking should be done on an 'as-needed' basis as well as a scheduled replacement in order to prevent failures that could lead to leaking issues that cause damage to the buildings components.

Deck - Replacements, Low-Rise & Townhouses - 2025

		1 Total	@ $22,400.00
Asset ID	1152	Asset Cost	$22,400.00
		Percent Replacement	100%
	Building Components	Future Cost	$25,226.04
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Adjustment	4	Annual Assessment	$265.71
Replacement Year	2025	Interest Contribution	$3.72
Remaining Life	6	Reserve Allocation	$269.43

8 - wood decks @ $2,800.00 = $22,400.00

Deck - Replacements, Low-Rise & Townhouses continued...

Total = $22,400.00

The wood decks should be cleaned and treated with a stain made for PT wood products. Keep the decks free of debris and protected with a proper PT stain will help maintain the decks in a good state of repair and reduce the needs for wood rot replacements.

The metal collars (joist supports) should be checked on an annual basis for rust/corrosion and repalced if needed. Boards should be checked for major cracks that could cause structural strength issues. Most exposed wood boards will have some limited small cracks here and there.

Check nails and other fastners to make sure they have not come loose. Replace as-needed.

EFIS - Repairs/Replacements - 2019

Asset ID	1165	1 Total	@ $10,000.00
		Asset Cost	$10,000.00
		Percent Replacement	100%
	Building Components	Future Cost	$10,000.00
Placed in Service	January 2011	Assigned Reserves	$10,000.00
Useful Life	6		
Replacement Year	2019	Annual Assessment	$118.62
Remaining Life	0	Interest Contribution	$1.66
		Reserve Allocation	$120.28




It is unlikely that all of the EFIS needs to be stripped (removed). Damaged areas can be repaired without total removal of the EFIS system.

This line item is set up as an allowance for continued EFIS repairs and/or area replacements. Keeping the EFIS in a good state of repair will help reduce the need for full replacement.

In most cases water intrusion is not caused by actual damage to the EFIS. The water intrusion is caused by a failure at the secondary moisture barriers such as felt paper and Tyvek, flashing,

EFIS - Repairs/Replacements continued...

and the primary moisture barrier which includes windows, doors, cladding and sealants.

There were some noted growth/dis-coloring. This is a possible indiaction that water has infiltrated the EFIS. These areas should be addressed.

EFIS stands for Exterior Insulation and Finish Systems. The product is also called synthetic stucco, and refers to a multi- layered exterior finish that's used in construction.

There are three layers to EIFS:

Inner Layer Foam insulation board that's secured to the exterior wall surface, often with adhesive.

Middle Layer A polymer and cement base coat that's applied to the top of the insulation, then reinforced with glass fiber mesh.

Exterior Layer A textured finish coat.

EIFS layers bond to form a covering that doesn't breathe. That's fine when no moisture is present behind the covering, but if moisture seeps in it can become trapped behind the layers. With no place to go, constant exposure to moisture can lead to rot in wood and other vulnerable materials.

Maintaining EIFS:

•Any opening, such as door and window frames and the areas around flashings, must be sealed to prevent water from seeping behind the EIFS.
•Foam should not extend below grade.
•Items that penetrate the stucco must be sealed. In other words, no moisture should be able to seep behind the EIFS.

Signs of EIFS Problems:
•Mold or mildew on the interior or exterior of the building.
•Swollen wood around door and window frames.
•Blistered or peeling paint.
•Cracked EIFS, crumbling (broken EIFS areas) or cracked sealant.

EFIS repairs and or replacements should only be performed by a professional that has an extensive background in EFIS application and repairs.

EFIS mainteance mainly consists of keeping the EFIS surface clean. Damaged areas should be addressed immediately and by a professional.

EIFS Improvements:

EFIS - Repairs/Replacements continued...

Newer EIFS systems include a drainage arrangement to help keep moisture from being trapped behind the covering.

Garage Door - Replacements, Underground Parking - 2019

		1 Total	@ $24,000.00
Asset ID	1089	Asset Cost	$24,000.00
		Percent Replacement	100%
	Building Components	Future Cost	$24,000.00
Placed in Service	January 1991	Assigned Reserves	$24,000.00
Useful Life	20		
Replacement Year	2019	Annual Assessment	$101.94
Remaining Life	0	Interest Contribution	$1.43
		Reserve Allocation	$103.37

2 - roll up garage doors @$12,000.00 = $24,000.00

Total = $24,000.00

Rountine PM - make sure the doors move up and down freely. The tracks are balanced and not damaged. The motor is clean and clear of debris and build up that could cause it to run hot. Make sure the drive chain is not worn out, well lubricated, no kinks and track properly.

Green House Window - Replacements - 2031

		1 Total	@ $102,400.00
Asset ID	1175	Asset Cost	$102,400.00
		Percent Replacement	100%
	Building Components	Future Cost	$129,867.96
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	30		
Adjustment	10	Annual Assessment	$655.44
Replacement Year	2031	Interest Contribution	$9.18
Remaining Life	12	Reserve Allocation	$664.62

8 - green house @$12,800.00 = $102,400.00

Total = $102,400.00

Metal Railing - Replacements, All Bldgs. - 2031

		1 Total	@ $43,524.00
Asset ID	1085	Asset Cost	$43,524.00
		Percent Replacement	100%
	Building Components	Future Cost	$55,198.96
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	40		
Replacement Year	2031	Annual Assessment	$278.59
Remaining Life	12	Interest Contribution	$3.90
		Reserve Allocation	$282.49

Metal Railing - Replacements, All Bldgs. continued...

702 - lin.ft. of metal railing	@	$62.00 =	$43,524.00
		Total =	$43,524.00

This includes the metal railing located throughout the grounds. This line item is for the replacement of the metal railing.

The metal railing should be inspected at least once a year to determine any needed repairs and/or premature replacements.

The metal railing should also be on a set schedule for painting. Painting the metal railing will help prevent rusting and corrosion. Painting is not considered a resere funding expense. No funding for the painting of the metal railing has been set up. It is recommended that a paint cycle be set up and funded for through either the annual operational budget and/or through a paint fund.

Patio Fence - Replacements (Wood) - 2047

		1 Total	@ $54,000.00
Asset ID	1169	Asset Cost	$54,000.00
		Percent Replacement	100%
	Building Components	Future Cost	$94,015.31
Placed in Service	January 2017	Assigned Reserves	*none*
Useful Life	30		
Replacement Year	2047	Annual Assessment	$181.02
Remaining Life	28	Interest Contribution	$2.53
		Reserve Allocation	$183.55

Patio Fence - Replacements (Wood) continued...



The new patio fencing should be aged for one year before protecting it with a stain. Then the patio fencing should be put on a set schedule for staining in order to protect the wood from the elements. Staining is not considered a reserve funding expense. The staining should be funded for through the annual operational budget and/or a paint/stain fund.

Siding/Trim - Wood Replacements - 2022

		1 Total	@ $30,000.00
Asset ID	1166	Asset Cost	$30,000.00
		Percent Replacement	100%
	Building Components	Future Cost	$31,836.24
Placed in Service	January 2016	Assigned Reserves	*none*
Useful Life	6		
Replacement Year	2022	Annual Assessment	$684.95
Remaining Life	3	Interest Contribution	$9.59
		Reserve Allocation	$694.54






This line item is for needed replacements to the clapboard, trim, and wood panel siding.

According to the client these types of repairs are done on an 'as-needed' basis. This line item is set up based on a 6yr Useful Life cycle. It is recommended that the cycle be the same as the paint cycle. The actual paint cycle was not available at the time of this report. This line item

Siding/Trim - Wood Replacements continued...

should be adjusted accordingly if the actual paint cycle becomes available.

This line item does not include the actual painting. Painting is not considered a reserve funding expense. The actual painting should be funded for through the annual operational budget and/or a paint fund.

Building Components - Total Current Cost	**$440,975**
Assigned Reserves	**$113,146**
Fully Funded Reserves	**$324,201**

Sample
MCA Detail Report by Category

Awning - Replacements - 2025

		1 Total	@ $30,000.00
Asset ID	1176	Asset Cost	$30,000.00
		Percent Replacement	100%
	Grounds Components	Future Cost	$33,784.87
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	20		
Adjustment	14	Annual Assessment	$355.86
Replacement Year	2025	Interest Contribution	$4.98
Remaining Life	6	Reserve Allocation	$360.84



3 - awings @$10,000.00 = $30,000.00
Total = $30,000.00

Courtyard - Paver/Waterproofing System - 2032

		1 Total	@ $2,181,250.00
Asset ID	1168	Asset Cost	$2,181,250.00
		Percent Replacement	100%
	Grounds Components	Future Cost	$2,821,679.46
Placed in Service	January 1991	Assigned Reserves	*none*
Useful Life	40		
Adjustment	1	Annual Assessment	$13,051.87
Replacement Year	2032	Interest Contribution	$182.73
Remaining Life	13	Reserve Allocation	$13,234.60

Courtyard - Paver/Waterproofing System continued...






17,450 - sq.ft. of courtyard area	@	$125.00 =	$2,181,250.00
		Total =	$2,181,250.00

This line item is for the replacement of the large planters, plaza paver system, and underlayment waterproofing and drainage system that is over the underground parking area.

The buildings sit on part of the footprint of the underground garage according to the build plans.

Maintenance to the plaza would include replacing damaged pavers, drain cover adjustments if needed (sinking/heaving), lead flashing repairs (flashing at the transition areas throughout the plaza), planter wall repairs due to crack damage. Concrete joint and stair repairs.

Any cracks of missing pavers should be addressed immediately for safety concerns, prevent further damage to the pavers and/or other components of the Courtyard Paver/Warerproofing System.

The actaul waterproofing and drainage system that serves the plaza area over the underground garage is a very complex system. The basis of the system is a lot like the rubber membrane roofing system on the buildings. The theory of the system is the same. Contain, control, and drain all water from the plaza area. Keeping it from getting into the underground garage area.

There are many factors that can greatly increase the actual cost of replacing waterproofing system.

The estimated cost per sq.ft. used is based on other waterproofing system replacements.

Grounds Components - Total Current Cost	**$2,211,250**
Assigned Reserves	**$0**
Fully Funded Reserves	**$1,514,340**

Comments

		1 Comment	
Asset ID	1170	Asset Cost	
		Percent Replacement	100%
	Comment	Future Cost	
Placed in Service	January 2018	Assigned Reserves	*none*
Useful Life	100		
Replacement Year	2118	Annual Assessment	No Assessment
Remaining Life	99	Interest Contribution	$0.00
		Reserve Allocation	

Windows & Doors - The common area windows and doors should be replaced and/or repaired on an 'as-needed' basis.

Concrete - Typically, budgeting for concrete repairs and/or replacements as a reserve component is excluded as it is anticipated that any repairs and/or replacements will be addressed immediately to avoid further damage and for safety concerns. Good maintenance would not allow the needs for repairs to accumulate to a point that the repairs would become a major expense. Minor repairs and/or area replacements, as needed, should be addressed immediately as a maintenance issue using the client's annual operational budget and/or reserve fund contingency funds.

Infrastructure Systems (Electrical, Water, and Sewer) - Typically, budgeting for the complete replacement of an infrastructure system throughout a building is excluded. It is anticipated that any needed repairs and/or replacements would be made on an 'as-needed' basis.

It is impossible to predict the Remaining Life of an infrastrcuture system in part or in whole. Most of the infrastructure systems are enclosed within the walls, ceilings, and floors of the building(s). The infrastructure systems are built and esigned to last the legal life of the Bldg. (75-100yrs.).

Most issues that require repairs and/or replacements are due to unforeseen issues, component defects, construction defects, and improper installation.

Granite Flooring - Typically, budgeting for granite repairs and/or replacements as a reserve component is excluded as it is anticipated that any repairs and/or replacements will be addressed immediately to avoid further damage and for safety concerns. Good maintenance would not allow the needs for repairs to accumulate to a point that the repairs would become a major expense. Minor repairs and/or area replacements, as needed, should be addressed immediately as a maintenance issue using the client's annual operational budget and/or reserve fund contingency funds.

Drop Ceiling Panels: There are drop ceiling area in both Mid-Rise buildings and the under-ground garage. It is estimated that panels will be replaced on an 'as-needed' based on damaged panels. The drop ceiling system (all panels/metal grid) will most likely never need to be completely replaced all at once. Funding for panel replacement should come from an annual maintenance operational line item.

Comments continued...

Comment - Total Current Cost	**$0**
Assigned Reserves	**$0**
Fully Funded Reserves	**$0**

Detail Report Summary

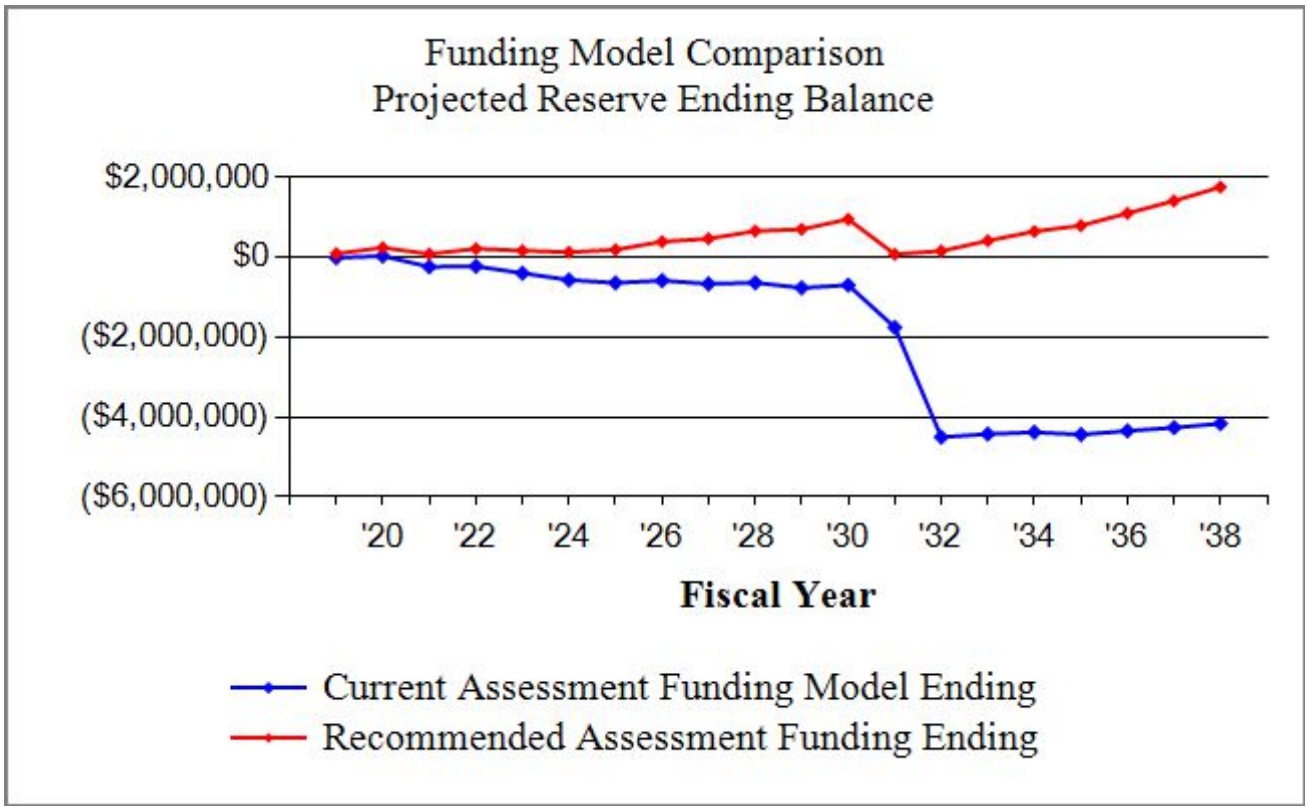
Grand Total

Assigned Reserves	$165,146.00
Annual Contribution	$39,996.00
Annual Interest	$559.94
Annual Allocation	$40,555.94

Sample
MCA Category Detail Index

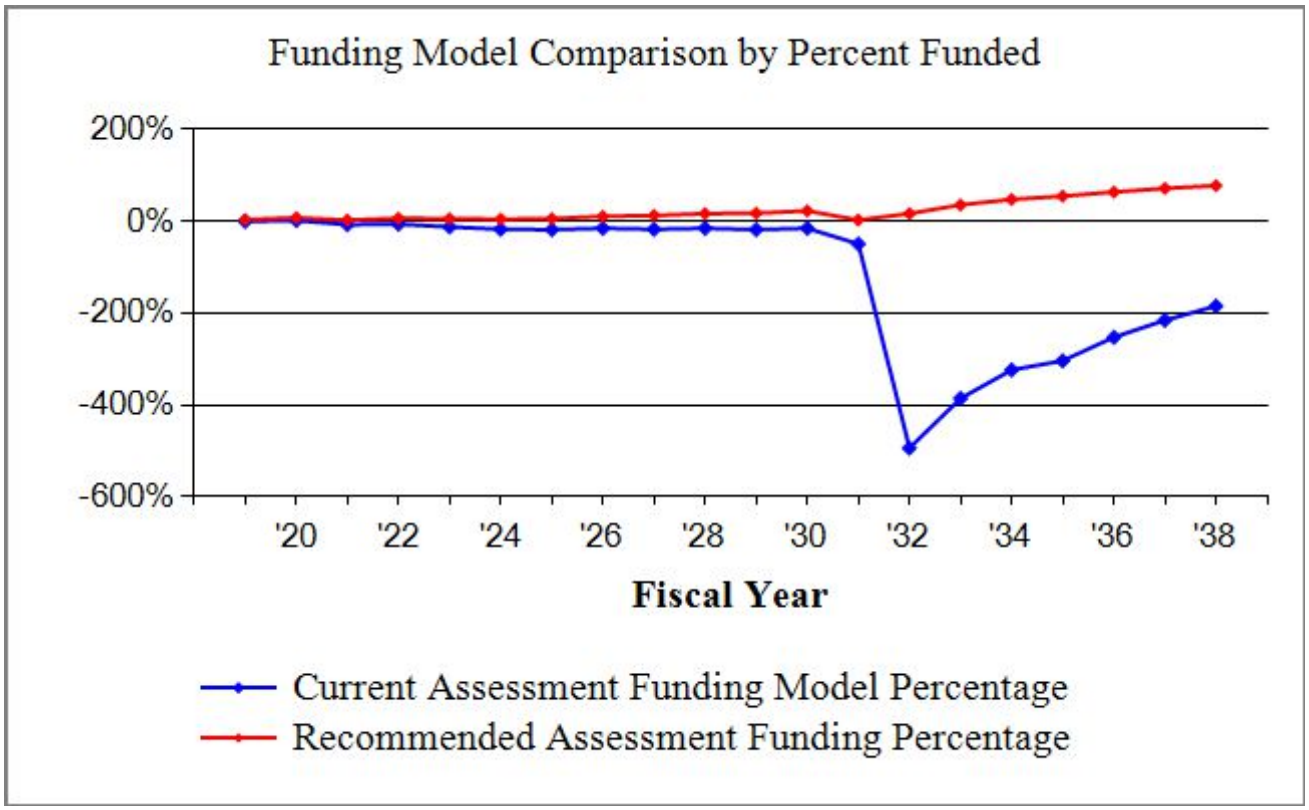
Total Funded Assets	37
Total Unfunded Assets	1
Total Assets	38

Sample
MCA Funding Model Reserve Ending Balance Comparison Chart



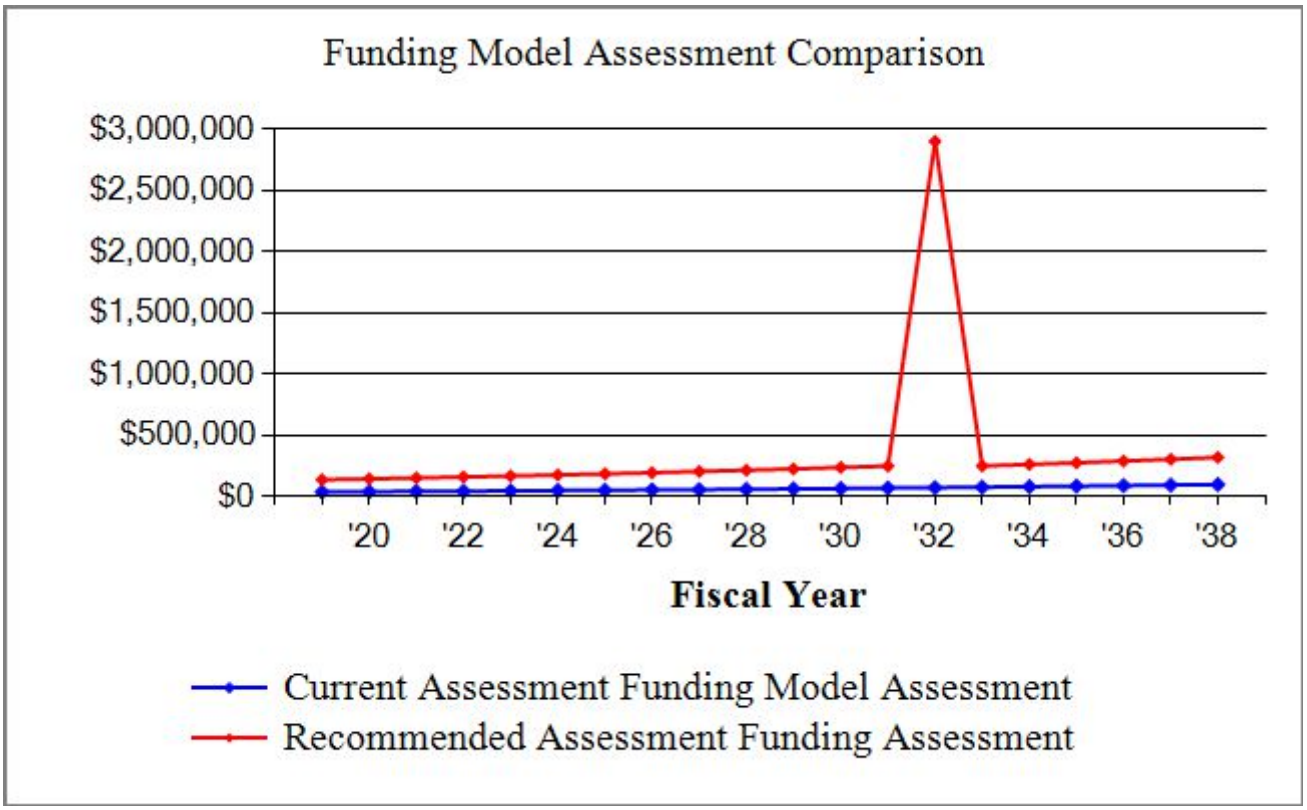
The chart above compares the projected reserve ending balances of the three funding models (Current Assessment Funding Model, Threshold Funding Model and Component Funding Model) over 30 years.

Sample
MCA Funding Model Comparison by Percent Funded



The chart above compares the three funding models (Current Assessment Funding Model, Threshold Funding Model and Component Funding Model) by the percentage fully funded over 30 years. This allows your association to view and then choose the funding model that might best fit your community's needs.

Sample
MCA Funding Model Assessment Comparison Chart



The chart above compares the annual assessment of the three funding models (Current Assessment Funding Model, Threshold Funding Model and Component Funding Model) over 30 years.

Sample
MCA Asset Summary Report

Description	Asset ID	Date In Service	Current Cost	Useful Life	Adjustment	Remaining	Future Cost	Quantity	Unit Cost
Roofing									
Roof - Flat, Membrane, Low-Rise #1 ..	1155	2031	120,472	20	0	12	152,788	1 @	120,472.00
Roof - Flat, Membrane, Mid-Rise #1	1054	2031	100,936	20	0	12	128,011	1 @	100,936.00
Roof - Flat, Membrane, Mid-Rise #2	1154	2031	196,416	20	0	12	249,103	1 @	196,416.00
Roof - Flat, Membrane, Townhouse #..	1156	2031	195,448	20	0	12	247,875	1 @	195,448.00
Roofs - Asphalt Shingle, Low-Rise #1..	1151	2041	9,600	30	0	22	14,841	1 @	9,600.00
Roofs - Asphalt Shingle, Townhouse ..	1157	2041	12,800	30	0	22	19,789	1 @	12,800.00
Interior Furnishings									
Building - Carpet, Bldg. Mid-Rise #1	1093	2029	11,346	18	0	10	13,831	1 @	11,346.00
Building - Carpet, Bldg. Mid-Rise #2	1158	2029	32,736	18	0	10	39,905	1 @	32,736.00
Building - Wallpaper, Bldg. Mid-Ris..	1102	2029	32,223	18	0	10	39,280	1 @	32,223.00
Building - Wallpaper, Bldg. Mid-Ris..	1159	2029	81,972	18	0	10	99,923	1 @	81,972.00
Equipment									
Access Keypad - Bldg. Mid-Rise #1	1171	2021	3,200	30	0	2	3,329	1 @	3,200.00
Access Keypad - Bldg. Mid-Rise #2	1172	2021	4,800	30	0	2	4,994	1 @	4,800.00
Elevators - Cab refurbishment, Bldg...	1110	2027	6,200	20	16	8	7,264	1 @	6,200.00
Elevators - Cab refurbishment, Bldg...	1161	2027	12,400	20	16	8	14,529	1 @	12,400.00
Elevators - Modernization, Bldg. Mi..	1015	2023	100,000	30	2	4	108,243	1 @	100,000.00
Elevators - Modernization, Bldg. Mi..	1163	2024	200,000	30	3	5	220,816	1 @	200,000.00
Equipment - Air Handlers, Bldg. Mi..	1113	2021	80,000	20	10	2	83,232	1 @	80,000.00
Equipment - Air Handlers, Bldg. Mi..	1162	2021	160,000	20	10	2	166,464	1 @	160,000.00
Equipment - Back-Up Generator	1114	2031	66,000	40	0	12	83,704	1 @	66,000.00
Equipment - Boiler, Replacements	1115	2023	76,000	30	2	4	82,265	1 @	76,000.00
Equipment - Fire Control Panel, Rep..	1016	2019	44,000	20	0	0	44,000	1 @	44,000.00
Equipment - Garage, Exhaust Fan	1173	2019	8,000	20	0	0	8,000	1 @	8,000.00
Equipment - Hot Water Storage, Re..	1057	2025	50,000	30	4	6	56,308	1 @	50,000.00
Equipment - Trash Compactor, Bldg..	1127	2023	14,000	30	2	4	15,154	1 @	14,000.00
Equipment - Trash Compactor, Bldg..	1164	2023	14,000	30	2	4	15,154	1 @	14,000.00
Equipment - Waste Caddy	1174	2035	4,000	20	0	16	5,491	1 @	4,000.00
Building Components									
Brick Facade - Repairs, All Bldgs.	1086	2021	54,651	10	20	2	56,859	1 @	1,821,696.00
Caulking - Exterior	1167	2019	100,000	8	0	0	100,000	1 @	100,000.00
Deck - Replacements, Low-Rise & T..	1152	2025	22,400	30	4	6	25,226	1 @	22,400.00
EFIS - Repairs/Replacements	1165	2019	10,000	6	0	0	10,000	1 @	10,000.00
Garage Door - Replacements, Under..	1089	2019	24,000	20	0	0	24,000	1 @	24,000.00
Green House Window - Replacements	1175	2031	102,400	30	10	12	129,868	1 @	102,400.00
Metal Railing - Replacements, All Bl..	1085	2031	43,524	40	0	12	55,199	1 @	43,524.00
Patio Fence - Replacements (Wood)	1169	2047	54,000	30	0	28	94,015	1 @	54,000.00
Siding/Trim - Wood Replacements	1166	2022	30,000	6	0	3	31,836	1 @	30,000.00
Grounds Components									
Awning - Replacements	1176	2025	30,000	20	14	6	33,785	1 @	30,000.00

Sample
MCA Asset Summary Report

Description	Asset ID	Date In Service	Current Cost	Useful Life	Adjustment	Remaining	Future Cost	Quantity	Unit Cost
Grounds Components continued...									
Courtyard - Paver/Waterproofing Sy..	1168	2032	2,181,250	40	1	13	2,821,679	1 @	2,181,250.00

Comment

Comments	*1170*	*Unfunded*