

Michael Callahan(RS) Associates, LLC.

Sample Apartments

AnyCity, AnyState
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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

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

Administrative:

Supplies

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:

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

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 of error and/or discrepancy. For example, some assumptions inevitably will not materialize and unanticipated events and circumstances may occur subsequent to the preparation of this reserve analysis. Therefore, the actual replacement costs and remaining lives may vary from this reserve analysis and the variation may be significant.

Additionally, inflation and other economic events may impact this reserve analysis, particularly over an extended period of time and those events could have a significant and negative impact on the accuracy of this reserve analysis and, further, the funds available to meet the association's obligation for repair, replacement or other maintenance of major components during their estimated useful life. Furthermore, the occurrence of vandalism, severe weather conditions, earthquakes, floods, acts of nature or other unforeseen events cannot be predicted and/or accounted for and excluded when assessing life expectancy, repair and/or replacement costs of the components.

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.

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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 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 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 ARS, Inc. 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 of error and/or discrepancy. For example, some assumptions inevitably will not materialize and unanticipated events and circumstances may occur subsequent to the preparation of this reserve analysis. Therefore, the actual replacement costs and remaining lives may vary from this reserve analysis and the variation may be significant.

Additionally, inflation and other economic events may impact this reserve analysis, particularly over an extended period of time and those events could have a significant and negative impact on the accuracy of this reserve analysis and, further, the funds available to meet the association's obligation for repair, replacement or other maintenance of major components during their estimated useful life. Furthermore, the occurrence of vandalism, severe weather conditions, earthquakes, floods, acts of nature or other unforeseen events cannot be predicted and/or accounted for and excluded when assessing life expectancy, repair and/or replacement costs of the components.

Sample Apartments
AnyCity, AnyState
MCA Recommended Funding Model Summary

		<i>Report Parameters</i>	
Report Date	January 1, 2019	Inflation	2.00%
Account Number	201722	Annual Assessment Increase	5.00%
Version	1	Interest Rate on Reserve Deposit	2.00%
Budget Year Beginning	October 1, 2018	Tax Rate on Interest	30.00%
Budget Year Ending	September 30, 2019	Contingency	1.00%
Total Units	108	2018 Beginning Balance	\$750,000
Phase Development	1 of 1		

Sample Apartments is located in AnyCity AnyState the property consists of 108 residential unit.

For budgeting purposes Michael Callahan & Associates, LLC. will use October, 1 1972 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 June, 7 2017.

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 October, 1 2018 Beginning Balance: \$250,000

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 projected 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.

<i>Recommended Funding Model Summary of Calculations</i>	
Required Month Contribution <i>\$108.02 per unit monthly</i>	\$11,666.67
Average Net Month Interest Earned	<u>\$555.65</u>
Total Month Allocation to Reserves <i>\$113.17 per unit monthly</i>	\$12,222.32

Sample Apartments
MCA Recommended Funding Model Projection

Beginning Balance: \$750,000

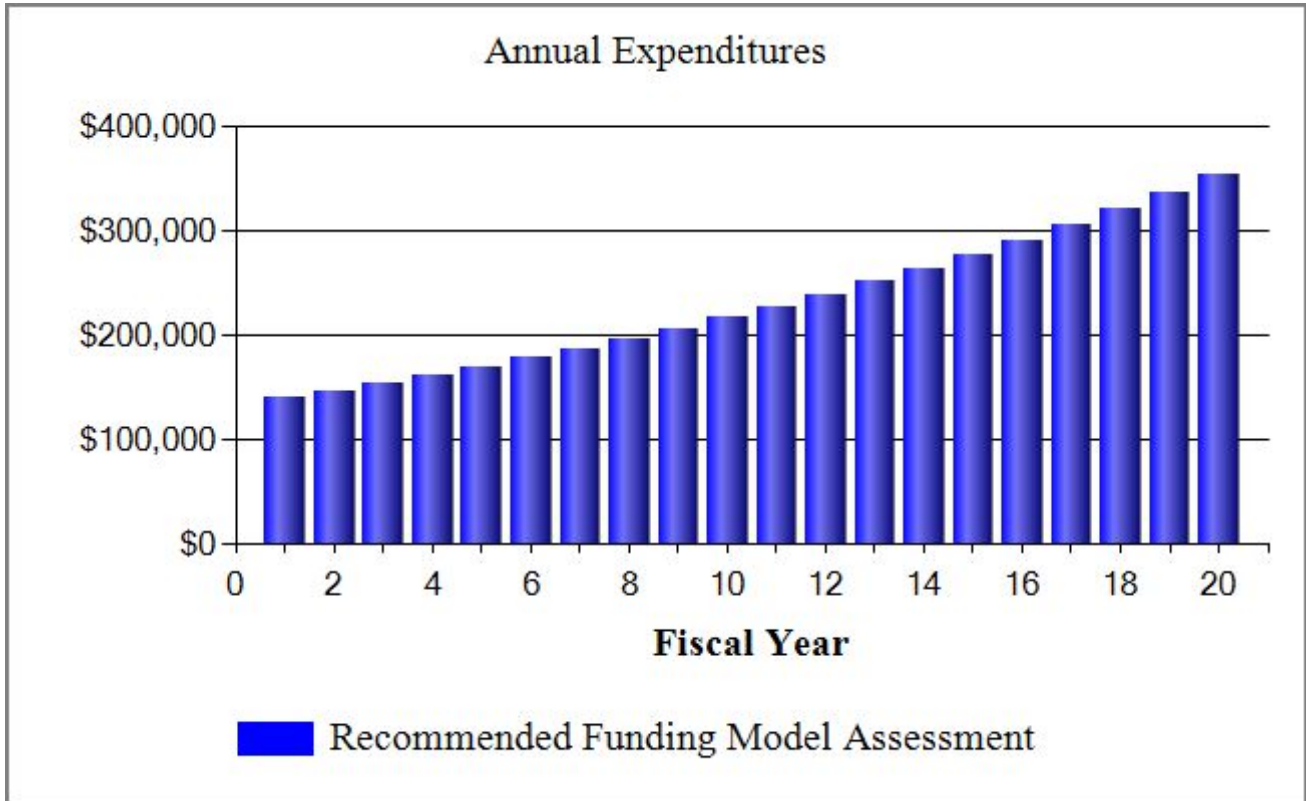
Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2018	1,536,556	140,000	6,668	352,447	544,221	940,102	58%
2019	1,567,287	147,000	7,069	121,992	576,298	1,011,994	57%
2020	1,598,633	154,350	4,947	308,641	426,954	898,492	48%
2021	1,630,605	162,067	5,462	126,920	467,562	971,697	48%
2022	1,663,217	170,171	4,483	241,341	400,875	932,928	43%
2023	1,696,482	178,679	3,536	246,498	336,593	891,644	38%
2024	1,730,411	187,613	3,531	187,393	340,344	915,305	37%
2025	1,765,020	196,994	826	388,180	149,984	738,577	20%
2026	1,800,320	206,844	329	238,409	118,748	716,583	17%
2027	1,836,326	217,186	1,313	142,933	194,314	795,664	24%
2028	1,873,053	228,045	2,169	163,666	260,862	859,389	30%
2029	1,910,514	239,448	3,404	148,708	355,006	943,941	38%
2030	1,948,724	251,420	3,703	228,115	382,014	953,571	40%
2031	1,987,699	263,991	4,554	201,531	449,027	994,976	45%
2032	2,027,453	277,190	6,214	157,810	574,622	1,086,364	53%
2033	2,068,002	291,050	7,767	180,700	692,739	1,160,879	60%
2034	2,109,362	305,602	9,775	164,185	843,931	1,258,473	67%
2035	2,151,549	320,883	11,975	167,469	1,009,320	1,359,506	74%
2036	2,194,580	336,927	14,381	170,818	1,189,809	1,464,077	81%
2037	2,238,472	353,773	17,004	174,235	1,386,352	1,572,287	88%

Recommended Funding Model VS Fully Funded

- Recommended Assessment Funding Fully Funded
- Recommended Assessment Funding Ending

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 Apartments
MCA Recommended Annual Expenditure Chart**



Sample Apartments
MCA Recommended Expenditure Spread Sheet

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Beginning Balance	750,000	544,221	576,298	426,954	467,562	400,875	336,593	340,344	149,984	118,748
Annual Assessment	140,000	147,000	154,350	162,067	170,171	178,679	187,613	196,994	206,844	217,186
Interest Earned	6,668	7,069	4,947	5,462	4,483	3,536	3,531	826	329	1,313
Expenditures	352,447	121,992	308,641	126,920	241,341	246,498	187,393	388,180	238,409	142,933
Fully Funded Reserves	940,102	1,011,994	898,492	971,697	932,928	891,644	915,305	738,577	716,583	795,664
Percent Fully Funded	58%	57%	48%	48%	43%	38%	37%	20%	17%	24%
Ending Balance	544,221	576,298	426,954	467,562	400,875	336,593	340,344	149,984	118,748	194,314
Description										
Access Keypad - Replacements							52,704			
Brick Siding - Repointing (All Bldgs.)	14,663					16,189				
Comments	<i>Unfunded</i>									
Doors - Main Entrance, Replacements									16,028	
Drive/Parking Area - Asphalt Overlay, Replace..										
Fire Control Panel - Replacements	132,000									
Flooring - Vinyl Tile, Replacements (Hallways)									82,250	
Gutters & Downspout - Replacements								76,365		
Hot Water Heater - Replacements	9,600	9,792	9,988	10,188	10,391	10,599	10,811	11,027	11,248	11,473
Monument Sign - Replacements								10,338		
Roof - Flat Rubber Membrane, (Commercial, 20..			184,209							
Roof - Flat Rubber Membrane, (Commercial, 20..										
Roofs - Asphalt Shingle, Bldgs., Schedule #1					111,882					
Roofs - Asphalt Shingle, Bldgs., Schedule #2						98,261				
Roofs - Asphalt Shingle, Bldgs., Schedule #3								102,231		
Roofs - Asphalt Shingle, Bldgs., Schedule #4								61,864		
Siding - Wood Clapboard, Commercial Bldgs.	86,184									
Unit Appliance - Replacements	14,000	14,280	14,566	14,857	15,154	15,457	15,766	16,082	16,403	16,731
Unit Interior - Refurbishments	96,000	97,920	99,878	101,876	103,913	105,992	108,112	110,274	112,479	114,729
Vinyl Siding - Replacements										
Window - Replacements, Schedule #1										
Window - Replacements, Schedule #2										
Window - Replacements, Schedule #3										
Window - Replacements, Schedule #4										
Year Total:	352,447	121,992	308,641	126,920	241,341	246,498	187,393	388,180	238,409	142,933

Sample Apartments
MCA Recommended Expenditure Spread Sheet

	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Beginning Balance	194,314	260,862	355,006	382,014	449,027	574,622	692,739	843,931	1,009,320	1,189,809
Annual Assessment	228,045	239,448	251,420	263,991	277,190	291,050	305,602	320,883	336,927	353,773
Interest Earned	2,169	3,404	3,703	4,554	6,214	7,767	9,775	11,975	14,381	17,004
Expenditures	163,666	148,708	228,115	201,531	157,810	180,700	164,185	167,469	170,818	174,235
Fully Funded Reserves	859,389	943,941	953,571	994,976	1,086,364	1,160,879	1,258,473	1,359,506	1,464,077	1,572,287
Percent Fully Funded	30%	38%	40%	45%	53%	60%	67%	74%	81%	88%
Ending Balance	260,862	355,006	382,014	449,027	574,622	692,739	843,931	1,009,320	1,189,809	1,386,352
Description										
Access Keypad - Replacements										
Brick Siding - Repointing (All Bldgs.)	17,874					19,735				
Comments	<i>Unfunded</i>									
Doors - Main Entrance, Replacements										
Drive/Parking Area - Asphalt Overlay, Replace..			76,433							
Fire Control Panel - Replacements										
Flooring - Vinyl Tile, Replacements (Hallways)										
Gutters & Downspout - Replacements										
Hot Water Heater - Replacements	11,702	11,936	12,175	12,419	12,667	12,920	13,179	13,442	13,711	13,985
Monument Sign - Replacements										
Roof - Flat Rubber Membrane, (Commercial, 20..										
Roof - Flat Rubber Membrane, (Commercial, 20..				46,816						
Roofs - Asphalt Shingle, Bldgs., Schedule #1										
Roofs - Asphalt Shingle, Bldgs., Schedule #2										
Roofs - Asphalt Shingle, Bldgs., Schedule #3										
Roofs - Asphalt Shingle, Bldgs., Schedule #4										
Siding - Wood Clapboard, Commercial Bldgs.										
Unit Appliance - Replacements	17,066	17,407	17,755	18,110	18,473	18,842	19,219	19,603	19,995	20,395
Unit Interior - Refurbishments	117,023	119,364	121,751	124,186	126,670	129,203	131,787	134,423	137,112	139,854
Vinyl Siding - Replacements										
Window - Replacements, Schedule #1										
Window - Replacements, Schedule #2										
Window - Replacements, Schedule #3										
Window - Replacements, Schedule #4										
Year Total:	163,666	148,708	228,115	201,531	157,810	180,700	164,185	167,469	170,818	174,235

Sample Apartments
MCA Distribution of Accumulated Reserves

Description	Remaining Life	Replacement Year	Assigned Reserves	Fully Funded Reserves
Hot Water Heater - Replacements	0	2018	9,600	9,600
Unit Appliance - Replacements	0	2018	14,000	14,000
Brick Siding - Repointing (All Bldgs.)	0	2018	14,663	14,663
Siding - Wood Clapboard, Commercial Bldgs.	0	2018	86,184	86,184
Unit Interior - Refurbishments	0	2018	96,000	96,000
Fire Control Panel - Replacements	1	2019	D 132,000	132,000
Roof - Flat Rubber Membrane, (Commercial,..	2	2020	* 83,153	159,350
Roofs - Asphalt Shingle, Bldgs., Schedule #1	4	2022		88,049
Roofs - Asphalt Shingle, Bldgs., Schedule #2	5	2023		73,105
Access Keypad - Replacements	6	2024		41,400
Monument Sign - Replacements	7	2025		4,800
Roofs - Asphalt Shingle, Bldgs., Schedule #4	7	2025		41,290
Gutters & Downspout - Replacements	7	2025		50,968
Roofs - Asphalt Shingle, Bldgs., Schedule #3	7	2025		68,232
Doors - Main Entrance, Replacements	8	2026		11,653
Flooring - Vinyl Tile, Replacements (Hallway..	8	2026		59,800
Drive/Parking Area - Asphalt Overlay, Repla..	12	2030		31,339
Roof - Flat Rubber Membrane, (Commercial,..	13	2031		12,666
Vinyl Siding - Replacements	27	2045		17,784
Window - Replacements, Schedule #1	27	2045		25,951
Window - Replacements, Schedule #2	28	2046		23,954
Window - Replacements, Schedule #3	29	2047		21,958
Window - Replacements, Schedule #4	30	2048		18,739
Comments		Unfunded		
Total Asset Summary			<u>\$435,600</u>	<u>\$1,103,487</u>
Contingency at 1.00%			<u>\$4,400</u>	<u>\$11,146</u>
Summary Total			<u>\$440,000</u>	<u>\$1,114,633</u>

Percent Fully Funded	39%
Current Average Liability per Unit (Total Units: 108)	-\$6,247

'' Indicates Partially Funded*

'D' Indicates Deferred Funding

**Sample Apartments
MCA Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2018	
Brick Siding - Repointing (All Bldgs.)	14,663
Hot Water Heater - Replacements	9,600
Siding - Wood Clapboard, Commercial Bldgs.	86,184
Unit Appliance - Replacements	14,000
Unit Interior - Refurbishments	96,000
Total for 2018	\$220,447
Replacement Year 2019	
Fire Control Panel - Replacements	134,640
Hot Water Heater - Replacements	9,792
Unit Appliance - Replacements	14,280
Unit Interior - Refurbishments	97,920
Total for 2019	\$256,632
Replacement Year 2020	
Hot Water Heater - Replacements	9,988
Roof - Flat Rubber Membrane, (Commercial, 2000)	184,209
Unit Appliance - Replacements	14,566
Unit Interior - Refurbishments	99,878
Total for 2020	\$308,641
Replacement Year 2021	
Hot Water Heater - Replacements	10,188
Unit Appliance - Replacements	14,857
Unit Interior - Refurbishments	101,876
Total for 2021	\$126,920
Replacement Year 2022	
Hot Water Heater - Replacements	10,391
Roofs - Asphalt Shingle, Bldgs., Schedule #1	111,882
Unit Appliance - Replacements	15,154
Unit Interior - Refurbishments	103,913
Total for 2022	\$241,341
Replacement Year 2023	
Brick Siding - Repointing (All Bldgs.)	16,189
Hot Water Heater - Replacements	10,599

**Sample Apartments
MCA Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2023 continued...</i>	
Roofs - Asphalt Shingle, Bldgs., Schedule #2	98,261
Unit Appliance - Replacements	15,457
Unit Interior - Refurbishments	105,992
Total for 2023	\$246,498
Replacement Year 2024	
Access Keypad - Replacements	52,704
Hot Water Heater - Replacements	10,811
Unit Appliance - Replacements	15,766
Unit Interior - Refurbishments	108,112
Total for 2024	\$187,393
Replacement Year 2025	
Gutters & Downspout - Replacements	76,365
Hot Water Heater - Replacements	11,027
Monument Sign - Replacements	10,338
Roofs - Asphalt Shingle, Bldgs., Schedule #3	102,231
Roofs - Asphalt Shingle, Bldgs., Schedule #4	61,864
Unit Appliance - Replacements	16,082
Unit Interior - Refurbishments	110,274
Total for 2025	\$388,180
Replacement Year 2026	
Doors - Main Entrance, Replacements	16,028
Flooring - Vinyl Tile, Replacements (Hallways)	82,250
Hot Water Heater - Replacements	11,248
Unit Appliance - Replacements	16,403
Unit Interior - Refurbishments	112,479
Total for 2026	\$238,409
Replacement Year 2027	
Hot Water Heater - Replacements	11,473
Unit Appliance - Replacements	16,731
Unit Interior - Refurbishments	114,729
Total for 2027	\$142,933
Replacement Year 2028	
Brick Siding - Repointing (All Bldgs.)	17,874

**Sample Apartments
MCA Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2028 continued...</i>	
Hot Water Heater - Replacements	11,702
Unit Appliance - Replacements	17,066
Unit Interior - Refurbishments	117,023
Total for 2028	\$163,666
Replacement Year 2029	
Hot Water Heater - Replacements	11,936
Unit Appliance - Replacements	17,407
Unit Interior - Refurbishments	119,364
Total for 2029	\$148,708
Replacement Year 2030	
Drive/Parking Area - Asphalt Overlay, Replacement	76,433
Hot Water Heater - Replacements	12,175
Unit Appliance - Replacements	17,755
Unit Interior - Refurbishments	121,751
Total for 2030	\$228,115
Replacement Year 2031	
Hot Water Heater - Replacements	12,419
Roof - Flat Rubber Membrane, (Commercial, 2011)	46,816
Unit Appliance - Replacements	18,110
Unit Interior - Refurbishments	124,186
Total for 2031	\$201,531
Replacement Year 2032	
Hot Water Heater - Replacements	12,667
Unit Appliance - Replacements	18,473
Unit Interior - Refurbishments	126,670
Total for 2032	\$157,810
Replacement Year 2033	
Brick Siding - Repointing (All Bldgs.)	19,735
Hot Water Heater - Replacements	12,920
Unit Appliance - Replacements	18,842
Unit Interior - Refurbishments	129,203
Total for 2033	\$180,700

**Sample Apartments
MCA Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2034	
Hot Water Heater - Replacements	13,179
Unit Appliance - Replacements	19,219
Unit Interior - Refurbishments	131,787
Total for 2034	\$164,185
Replacement Year 2035	
Hot Water Heater - Replacements	13,442
Unit Appliance - Replacements	19,603
Unit Interior - Refurbishments	134,423
Total for 2035	\$167,469
Replacement Year 2036	
Hot Water Heater - Replacements	13,711
Unit Appliance - Replacements	19,995
Unit Interior - Refurbishments	137,112
Total for 2036	\$170,818
Replacement Year 2037	
Hot Water Heater - Replacements	13,985
Unit Appliance - Replacements	20,395
Unit Interior - Refurbishments	139,854
Total for 2037	\$174,235

Sample Apartments **MCA Detail Report by Category**

Drive/Parking Area - Asphalt Overlay, Replacement - 2030

Asset ID	1001	50,751 sq.ft.	@ \$4.75
		Asset Cost	\$60,266.81
		Percent Replacement	25%
Streets/Asphalt		Future Cost	\$76,432.89
Placed in Service	October 2005	Assigned Reserves	<i>none</i>
Useful Life	25		
Replacement Year	2030	Monthly Assessment	\$300.29
Remaining Life	12	Interest Contribution	<u>\$2.29</u>
		Reserve Allocation	\$302.58



According to the client the asphalt was replaced as some point in the (yr)2000's. The actual year is not available. For budgeting purposes October 01, 2005 has been used for aging of the asphalt overlay.

A good maintenance cycle along with 'as-needed' repairs and/or replacement to the asphalt overlay will help the overlay to last the estimated 20-30 year Useful Life. In most cases repairs and/or replacements to areas of the asphalt overlay will not increase the overall Useful Life of the asphalt overlay.

The estimated cost used is for an asphalt overlay replacement. It does not include a complete foundation replacement. Any areas of the foundation that require repairs and/or replacements should be addressed at the time of the overlay replacement. The overall condition of the asphalt overlay and the foundation should be monitored over time. If the foundation starts to show major failure, the funding for the asphalt overlay replacement should be adjusted to cover foundation work also.

Typically an overlay application' has a much shorter Useful Life than an asphalt 'overlay replacement'. Most asphalt pavements are built on a gravel base which is generally at least as thick as the asphalt layer, although some 'full depth' pavements are built directly on the native sub grade. In areas with very soft or expansive sub grades such as clay or peat, thick gravel bases or stabilization of the sub grade with Portland cement or lime can be required. The actual material used in paving is termed HMA (Hot Mix Asphalt), and it is usually applied using a free floating screed.

Advantages of asphalt roadways include relatively low noise, relatively low cost compared with

Sample Apartments MCA Detail Report by Category

Drive/Parking Area - Asphalt Overlay, Replacement continued...

other paving methods, and ease of repair. Disadvantages include less durability than other paving methods, less tensile strength than concrete, the tendency to become slick and soft in hot weather and a certain amount of hydrocarbon pollution to soil and groundwater or waterways.

Although asphalt has been around for millions of years in crude oil, it doesn't last forever when used for paving roads. Few of us can have missed jolting over cracks and ruts in heavily trafficked roads. A number of factors impinge on the performance of asphalt. These include its composition, the crude oil source, the type and amount of aggregate used, the presence of moisture, the method of road construction, temperature and, of course, the volume of traffic.

Ideally, asphalt used for paving roads should remain consistent in all weather conditions. However, many asphalt roads soften in summer and suffer from rutting or permanent deformation, as it is also called. At low temperatures, neutral molecules in asphalt arrange themselves into more organized structural forms. As a result, the material hardens, becomes brittle and cracks under the stress of heavy traffic loads. This is known as thermal and fatigue cracking.

Asphalts also lose their plasticity and therefore harden and crack or crumble when they lose their more volatile lower molecular weight constituents or when these constituents are oxidized. This process is known as aging. Moisture from rain and other sources can also invade and damage asphalts, particularly aged or oxidized asphalts. Most asphalt areas can be expected to last approximately 20-30 years before it will become necessary for an overlay to be applied. This can double the life of the surface upon application. It will be necessary to adjust manhole and valve covers at the time the overlay is applied. Deflection testing should be conducted by an independent consultant near the end of the estimated useful life to determine the condition of the asphalt and estimated remaining life before the overlay is required.

In addition to this service, a consultant may be obtained to prepare the application specifications and to work with the contractor during actual installation. It is recommended that the client obtain bids for such a consultation near the end of the estimated useful life. As costs vary, a provision for this consulting has not been included in this cost estimate. Should the client request, this cost can be incorporated into this analysis.

As pavement systems primarily fail due to fatigue (in a manner similar to metals). Several pavement design methods have been developed to determine the thickness and composition of pavement required to carry predicted traffic loads for a given period of time. Pavement design methods are continuously evolving. Heavily loaded trucks can do more than 10,000 times the damage done by a normal passenger car. Passenger cars are considered to have no practical effect on a pavement's service life.

Sample Apartments
MCA Detail Report by Category

Streets/Asphalt - Total Current Cost	\$60,267
Assigned Reserves	\$0
Fully Funded Reserves	\$31,339

Sample Apartments
MCA Detail Report by Category

Roof - Flat Rubber Membrane, (Commercial, 2000) - 2020

Asset ID	1107	1 Total	@ \$177,056.00
		Asset Cost	\$177,056.00
		Percent Replacement	100%
	Roofing	Future Cost	\$184,209.06
Placed in Service	October 2000	Assigned Reserves	\$83,152.96
Useful Life	20		
Replacement Year	2020	Monthly Assessment	\$2,497.99
Remaining Life	2	Interest Contribution	<u>\$116.66</u>
		Reserve Allocation	\$2,614.65

16,096 - sq.ft. of rubber membrane roofing @ \$11.00 = \$177,056.00
Total = \$177,056.00

Typically, flat rubber membrane roofs come with a 20yr. Limited Warranty. The Useful Life of a flat rubber roof is also set at 20yrs.

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

Over-All:

- There were no indications that the roof could have leaking issues. According to the client, this roof had a leaking issue in one area of the roof. All of the leaking has been and will be

Sample Apartments MCA Detail Report by Category

Roof - Flat Rubber Membrane, (Commercial, 2000) continued...

addressed 'as-needed' until the roof is completely replaced. 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 client did indicate that any previous leaks have been fixed.

Flat roofs are frequently used as platforms for mechanical equipment. This is the case with this flat roof.

The common area HVAC Air Handlers (RTU) units are located on the flat roofing area.

Roof - Flat Rubber Membrane, (Commercial, 2011) - 2031

Asset ID	1108	1 Total	@ \$36,190.00
		Asset Cost	\$36,190.00
		Percent Replacement	100%
	Roofing	Future Cost	\$46,815.62
Placed in Service	October 2011	Assigned Reserves	<i>none</i>
Useful Life	20		
Replacement Year	2031	Monthly Assessment	\$168.56
Remaining Life	13	Interest Contribution	<u>\$1.28</u>
		Reserve Allocation	\$169.85
3,290 - sq.ft. of rubber membrane roofing	@	\$11.00 =	\$36,190.00
		Total =	\$36,190.00

Typically, flat rubber membrane roofs come with a 20yr. Limited Warranty. The Useful Life of a flat rubber roof is also set at 20yrs.

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:

Sample Apartments
MCA Detail Report by Category

Roof - Flat Rubber Membrane, (Commercial, 2011) continued...

- Substrate Preparation
- Roof Drains
- Vapor Barrier
- Wood Blocking
- Insulation
- Separation Layers
- Roof Membrane
- Fasteners
- Adhesive for Flashings
- Roof Membrane Flashings
- Metal Flashings
- Sealant

Over-All:

- There were no indications that the roof could have leaking issues. According to the client, this roof had a leaking issue in one area of the roof. All of the leaking has been and will be addressed 'as-needed' until the roof is completely replaced. 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 client did indicate that any previous leaks have been fixed.

Flat roofs are frequently used as platforms for mechanical equipment. This is the case with this flat roof.

The common area HVAC Air Handlers (RTU) units are located on the flat roofing area.

Sample Apartments **MCA Detail Report by Category**

Roofs - Asphalt Shingle, Bldgs., Schedule #1 - 2022

Asset ID	1004	1 Total	@ \$103,362.00
		Asset Cost	\$103,362.00
		Percent Replacement	100%
	Roofing	Future Cost	\$111,882.35
Placed in Service	October 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Adjustment	-3	Monthly Assessment	\$1,396.05
Replacement Year	2022	Interest Contribution	<u>\$10.63</u>
Remaining Life	4	Reserve Allocation	\$1,406.69



According to the client the roofs were replaced in the 1990's. For budgeting purposes October, 01, 1995 has been used to age the roofing.

The roof replacements have been set up under multiple schedules. Each schedule addresses a set amount of roofs. The schedules do not address specific roofs. At the time of each scheduled replacement the roofs should be inspected. The roofs would be prioritized by the 'then' current condition of each roof.

1 - roof (smaller bldg.)	@ \$18,714.00 =	\$18,714.00
2 - roofs (larger bldg.)	@ 35,142.00 =	70,284.00
1 - roof (commercial bldgs., Mansard)	@ 14,364.00 =	14,364.00
	Total =	\$103,362.00

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.

Roofing Specification 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)

**Sample Apartments
MCA Detail Report by Category**

Roofs - Asphalt Shingle, Bldgs., Schedule #1 continued...

- 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 transition 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
- All Standing Seam Roof Pans

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.

The current roofs are a 3-Tab asphalt shingle roof. There is shingle and drip edge damage throughout the buildings. There is also fungus and moss growth in some areas. According to the client the damaged areas and growth is not causing leaking issues at this time. It is recommended that the damaged shingles and drip edge be removed and replaced. The growth areas should also be addressed by removing the growth and applying an anti-fungal solution to help prevent future growth.

A Remaining Life Adjustment has been made in order to set up scheduled replacements.

Roofs - Asphalt Shingle, Bldgs., Schedule #2 - 2023

Asset ID	1096	1 Total Asset Cost	@ \$88,998.00 \$88,998.00
		Percent Replacement	100%
	Roofing	Future Cost	\$98,260.98
Placed in Service	October 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Adjustment	-2	Monthly Assessment	\$973.96
Replacement Year	2023	Interest Contribution	<u>\$7.42</u>
Remaining Life	5	Reserve Allocation	\$981.38

Sample Apartments **MCA Detail Report by Category**

Roofs - Asphalt Shingle, Bldgs., Schedule #2 continued...



The roof replacements have been set up under multiple schedules. Each schedule addresses a set amount of roofs. The schedules do not address specific roofs. At the time of each scheduled replacement the roofs should be inspected. The roofs would be prioritized by the 'then' current condition of each roof.

1 - roof (smaller bldg.)	@\$18,714.00 =	\$18,714.00
2 - roofs (larger bldg.)	@ 35,142.00 =	70,284.00
	Total =	\$88,998.00

A Remaining Life Adjustment has been made in order to set up scheduled replacements.

Roofs - Asphalt Shingle, Bldgs., Schedule #3 - 2025

Asset ID	1097	1 Total	@ \$88,998.00
		Asset Cost	\$88,998.00
		Percent Replacement	100%
	Roofing	Future Cost	\$102,230.73
Placed in Service	October 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2025	Monthly Assessment	\$713.60
Remaining Life	7	Interest Contribution	<u>\$5.43</u>
		Reserve Allocation	\$719.03

Sample Apartments **MCA Detail Report by Category**

Roofs - Asphalt Shingle, Bldgs., Schedule #3 continued...



The roof replacements have been set up under multiple schedules. Each schedule addresses a set amount of roofs. The schedules do not address specific roofs. At the time of each scheduled replacement the roofs should be inspected. The roofs would be prioritized by the 'then' current condition of each roof.

1 - roof (smaller bldg.)	@ \$18,714.00 =	\$18,714.00
2 - roofs (larger bldg.)	@ 35,142.00 =	70,284.00
	Total =	\$88,998.00

A Remaining Life Adjustment has been made in order to set up scheduled replacements.

Roofs - Asphalt Shingle, Bldgs., Schedule #4 - 2025

Asset ID	1098	1 Total	@ \$53,856.00
		Asset Cost	\$53,856.00
		Percent Replacement	100%
		Future Cost	\$61,863.62
		Assigned Reserves	<i>none</i>
Placed in Service	October 1995		
Useful Life	30		
Replacement Year	2025	Monthly Assessment	\$431.82
Remaining Life	7	Interest Contribution	<u>\$3.29</u>
		Reserve Allocation	\$435.11

**Sample Apartments
MCA Detail Report by Category**

Roofs - Asphalt Shingle, Bldgs., Schedule #4 continued...



The roof replacements have been set up under multiple schedules. Each schedule addresses a set amount of roofs. The schedules do not address specific roofs. At the time of each scheduled replacement the roofs should be inspected. The roofs would be prioritized by the 'then' current condition of each roof.

1 - roof (smaller bldg.)	@\$18,714.00 =	\$18,714.00
1 - roof (larger bldg.)	@ 35,142.00 =	<u>35,142.00</u>
	Total =	\$53,856.00

A Remaining Life Adjustment has been made in order to set up scheduled replacements.

Roofing - Total Current Cost	\$548,460
Assigned Reserves	\$83,153
Fully Funded Reserves	\$442,693

Sample Apartments
MCA Detail Report by Category

Flooring - Vinyl Tile, Replacements (Hallways) - 2026

Asset ID	1103	1 Total	@ \$70,200.00
		Asset Cost	\$70,200.00
		Percent Replacement	100%
Interior Furnishings		Future Cost	\$82,250.49
Placed in Service	October 1972	Assigned Reserves	<i>none</i>
Useful Life	30		
Adjustment	24	Monthly Assessment	\$498.80
Replacement Year	2026	Interest Contribution	<u>\$3.80</u>
Remaining Life	8	Reserve Allocation	\$502.60



28,080 - sq.ft. of vinyl tile flooring

$$\begin{aligned} @ \quad \$2.50 &= \underline{\$70,200.00} \\ \text{Total} &= \$70,200.00 \end{aligned}$$

Unit Appliance - Replacements - 2018

Asset ID	1105	1 Total	@ \$14,000.00
		Asset Cost	\$14,000.00
		Percent Replacement	100%
Interior Furnishings		Future Cost	\$14,000.00
Placed in Service	October 2017	Assigned Reserves	\$14,000.00
Useful Life	1		
Replacement Year	2018	Monthly Assessment	\$727.94
Remaining Life	0	Interest Contribution	<u>\$5.54</u>
		Reserve Allocation	\$733.49

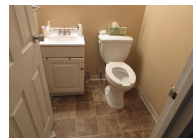
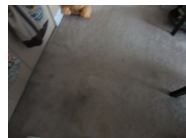
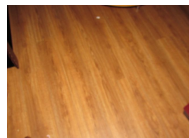
Sample Apartments **MCA Detail Report by Category**

Unit Appliance - Replacements continued...



Unit Interior - Refurbishments - 2018

Asset ID	1104	1 Total	@ \$96,000.00
		Asset Cost	\$96,000.00
		Percent Replacement	100%
		Future Cost	\$96,000.00
		Assigned Reserves	\$96,000.00
Placed in Service	October 2017	Monthly Assessment	\$4,991.60
Useful Life	1	Interest Contribution	<u>\$38.02</u>
Replacement Year	2018	Reserve Allocation	\$5,029.62
Remaining Life	0		



Interior Furnishings - Total Current Cost	\$180,200
Assigned Reserves	\$110,000
Fully Funded Reserves	\$169,800

**Sample Apartments
MCA Detail Report by Category**

Fire Control Panel - Replacements - 2019

Asset ID	1067	1 total @ \$132,000.00
		Asset Cost \$132,000.00
		Percent Replacement 100%
	Equipment	Future Cost \$134,640.00
Placed in Service	October 1996	Assigned Reserves \$132,000.00
Useful Life	20	
Replacement Year	Deferred 2019	Monthly Assessment \$39.77
Remaining Life	1	Interest Contribution <u>\$155.29</u>
		Reserve Allocation \$195.06

This line item is for the replacement of the fire control panel only. It does not include any other part of the fire control system.

The other components of the fire control system should be replaced on an 'as-needed' basis.

11 - fire control panels @ 12,000.00 = 132,000.00
Total = \$132,000.00

Hot Water Heater - Replacements - 2018

Asset ID	1095	12 Water Heater @ \$800.00
		Asset Cost \$9,600.00
		Percent Replacement 100%
	Equipment	Future Cost \$9,600.00
Placed in Service	October 2017	Assigned Reserves \$9,600.00
Useful Life	1	
Replacement Year	2018	Monthly Assessment \$499.16
Remaining Life	0	Interest Contribution <u>\$3.80</u>
		Reserve Allocation \$502.96



According to the client the hot water heaters are replaced on an 'as-needed' basis. Replacements average 12 a year.

Sample Apartments
MCA Detail Report by Category

Hot Water Heater - Replacements continued...

This includes the residential unit hot water heaters and the laundry room hot water heaters.

Equipment - Total Current Cost	\$141,600
Assigned Reserves	\$141,600
Fully Funded Reserves	\$141,600

Access Keypad - Replacements - 2024

A silver electronic door lock is mounted on a brick wall. The lock features a numeric keypad with blue buttons and a small display screen. Above the keypad are several horizontal ventilation slots. To the left of the lock is a glass door with a white frame. The brick wall is made of reddish-brown bricks with white mortar.
$$\begin{array}{r} @\$2,600.00 = \underline{\$46,800.00} \\ \text{Total} = \$46,800.00 \end{array}$$

Brick Siding - Repointing (All Bldgs.) - 2018

Michael Callahan & Associates, LLC 1.877.357.2322
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**Sample Apartments
MCA Detail Report by Category**

Brick Siding - Repointing (All Bldgs.) continued...



61,096 - sq.ft. of brick surface @ \$24.00 =
\$1,466,304.00

Total =\$1,466,304.00

This line item is for the repointing of the brick siding throughout all of the bldgs.. A percent of the total brick area has been used for funding purposes (1%). This percent can be and should be adjusted accordingly over time based on the actual history of needed brick siding (facade) maintenance (repointing).

The maintenance Useful Life is set at 5yrs.

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 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 waterproofing 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

Sample Apartments **MCA Detail Report by Category**

Brick Siding - Repointing (All Bldgs.) continued...

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.

Doors - Main Entrance, Replacements - 2026

Asset ID	1073	1 Total	@ \$13,680.00
		Asset Cost	\$13,680.00
		Percent Replacement	100%
Building Components		Future Cost	\$16,028.30
Placed in Service	October 1972	Assigned Reserves	<i>none</i>
Useful Life	30		
Adjustment	24	Monthly Assessment	\$97.20
Replacement Year	2026	Interest Contribution	<u>\$0.74</u>
Remaining Life	8	Reserve Allocation	<u>\$97.94</u>



36 - main entrance doors

$$\begin{aligned} @ \quad \$380.00 &= \underline{\$13,680.00} \\ \text{Total} &= \$13,680.00 \end{aligned}$$

**Sample Apartments
MCA Detail Report by Category**

Gutters & Downspout - Replacements - 2025

Asset ID	1102	1 Total	@ \$66,480.00
		Asset Cost	\$66,480.00
		Percent Replacement	100%
Building Components		Future Cost	\$76,364.62
Placed in Service	October 1995	Assigned Reserves	<i>none</i>
Useful Life	30		
Replacement Year	2025	Monthly Assessment	\$533.04
Remaining Life	7	Interest Contribution	<u>\$4.06</u>
		Reserve Allocation	\$537.10



3,020 - lin.ft. of gutters	@	\$12.00 =	\$36,240.00
2,520 - lin.ft. of downspouts	@	12.00 =	<u>30,240.00</u>
		Total =	\$66,480.00

This line item is for the replacement of the gutters and downspouts for all 11 residential bldgs.

Siding - Wood Clapboard, Commercial Bldgs. - 2018

Asset ID	1109	1 Total	@ \$86,184.00
		Asset Cost	\$86,184.00
		Percent Replacement	100%
Building Components		Future Cost	\$86,184.00
Placed in Service	October 1972	Assigned Reserves	\$86,184.00
Useful Life	40		
Replacement Year	2018	Monthly Assessment	\$182.22
Remaining Life	0	Interest Contribution	<u>\$1.39</u>
		Reserve Allocation	\$183.61

Sample Apartments **MCA Detail Report by Category**

Siding - Wood Clapboard, Commercial Bldgs. continued...



9,576 - lin.ft. of wood clapboard siding	@	\$9.00 =	<u>\$86,184.00</u>
		Total =	\$86,184.00

Vinyl Siding - Replacements - 2045

Asset ID	1019	6,080 sq.ft.	@ \$9.00
		Asset Cost	\$54,720.00
		Percent Replacement	100%
Building Components		Future Cost	\$93,400.83
Placed in Service	October 2005	Assigned Reserves	<i>none</i>
Useful Life	40		
Replacement Year	2045	Monthly Assessment	\$146.14
Remaining Life	27	Interest Contribution	<u>\$1.11</u>
		Reserve Allocation	\$147.26



Sample Apartments
MCA Detail Report by Category

Window - Replacements, Schedule #1 - 2045

Asset ID	1076	1 Total	@ \$79,848.00
		Asset Cost	\$79,848.00
		Percent Replacement	100%
Building Components		Future Cost	\$136,291.47
Placed in Service	October 2005	Assigned Reserves	<i>none</i>
Useful Life	40		
Replacement Year	2045	Monthly Assessment	\$213.26
Remaining Life	27	Interest Contribution	<u>\$1.62</u>
		Reserve Allocation	\$214.88



200 - single windows	@	\$289.00 =	\$57,800.00
5 - picture windows	@	689.00 =	3,445.00
27 - triple windows	@	689.00 =	<u>18,603.00</u>
		Total =	\$79,848.00

Window - Replacements, Schedule #2 - 2046

Asset ID	1099	1 Total	@ \$79,848.00
		Asset Cost	\$79,848.00
		Percent Replacement	100%
Building Components		Future Cost	\$139,017.30
Placed in Service	October 2006	Assigned Reserves	<i>none</i>
Useful Life	40		
Replacement Year	2046	Monthly Assessment	\$208.20
Remaining Life	28	Interest Contribution	<u>\$1.59</u>
		Reserve Allocation	\$209.78

200 - single windows	@	\$289.00 =	\$57,800.00
5 - picture windows	@	689.00 =	3,445.00
27 - triple windows	@	689.00 =	<u>18,603.00</u>

Sample Apartments
MCA Detail Report by Category

Window - Replacements, Schedule #2 continued...

Total = \$79,848.00

Window - Replacements, Schedule #3 - 2047

Asset ID	1100	1 Total	@ \$79,848.00
		Asset Cost	\$79,848.00
		Percent Replacement	100%
Building Components		Future Cost	\$141,797.65
Placed in Service	October 2007	Assigned Reserves	<i>none</i>
Useful Life	40		
Replacement Year	2047	Monthly Assessment	\$203.51
Remaining Life	29	Interest Contribution	<u>\$1.55</u>
		Reserve Allocation	\$205.06
200 - single windows		@ \$289.00 =	\$57,800.00
5 - picture windows		@ 689.00 =	3,445.00
27 - triple windows		@ 689.00 =	<u>18,603.00</u>
		Total =	\$79,848.00

Window - Replacements, Schedule #4 - 2048

Asset ID	1101	1 Total	@ \$74,958.00
		Asset Cost	\$74,958.00
		Percent Replacement	100%
Building Components		Future Cost	\$135,776.04
Placed in Service	October 2008	Assigned Reserves	<i>none</i>
Useful Life	40		
Replacement Year	2048	Monthly Assessment	\$186.97
Remaining Life	30	Interest Contribution	<u>\$1.42</u>
		Reserve Allocation	\$188.40
195 - single windows		@ \$289.00 =	\$56,355.00
3 - picture windows		@ 689.00 =	2,067.00
24 - triple windows		@ 689.00 =	<u>16,536.00</u>
		Total =	\$74,958.00

Sample Apartments
MCA Detail Report by Category

Building Components - Total Current Cost	\$597,029
Assigned Reserves	\$100,847
Fully Funded Reserves	\$313,255

**Sample Apartments
MCA Detail Report by Category**

Monument Sign - Replacements - 2025

Asset ID	1112	3 signs	@ \$3,000.00
		Asset Cost	\$9,000.00
		Percent Replacement	100%
Grounds Components		Future Cost	\$10,338.17
Placed in Service	October 2010	Assigned Reserves	<i>none</i>
Useful Life	15		
Replacement Year	2025	Monthly Assessment	\$72.16
Remaining Life	7	Interest Contribution	<u>\$0.55</u>
		Reserve Allocation	\$72.71



This line item is for the monument (landmark) signs. There are three monument signs. The placed-in-service date has been estimated.

Grounds Components - Total Current Cost	\$9,000
Assigned Reserves	\$0
Fully Funded Reserves	\$4,800

**Sample Apartments
MCA Detail Report by Category**

Comments		1 Comment	
Asset ID	1111	Asset Cost	
		Percent Replacement	100%
	Comments	Future Cost	
Placed in Service	October 2017	Assigned Reserves	<i>none</i>
No Useful Life			
		Monthly Assessment	No Assessment
		Interest Contribution	\$0.00
		Reserve Allocation	

- Concrete (All Areas) - 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. Should the client request, funding for concrete can be included.

Areas included but not limited to:

- Foundations/Walls
- Concrete Steps/walkways
- Trash (Dumpster) Areas (Slab)
- Exterior Lighting - Due to the nature and amount of exterior lighting it is estimated that the repairs and replacements to the exterior lighting can be easily funded for through the annual operational budget. Repairs and/or replacements would be performed on an 'as-needed' basis.

Comments - Total Current Cost	\$0
Assigned Reserves	\$0
Fully Funded Reserves	\$0

**Sample Apartments
MCA Detail Report by Category**

Detail Report Summary

Total of All Assets

Assigned Reserves	\$435,600.00
Monthly Contribution	\$15,675.00
Monthly Interest	\$372.01
Monthly Allocation	\$16,047.01

Contingency at 1.00%

Assigned Reserves	\$4,400.00
Monthly Contribution	\$158.33
Monthly Interest	\$3.76
Monthly Allocation	\$162.09

Grand Total

Assigned Reserves	\$440,000.00
Monthly Contribution	\$15,833.33
Monthly Interest	\$375.76
Monthly Allocation	\$16,209.10

Sample Apartments **MCA Category Detail Index**

Asset ID	Description	Replacement	Page
1060	Access Keypad - Replacements	2024	2-27
1110	Brick Siding - Repointing (All Bldgs.)	2018	2-27
1111	Comments	Unfunded	2-36
1073	Doors - Main Entrance, Replacements	2026	2-29
1001	Drive/Parking Area - Asphalt Overlay, Replacement	2030	2-12
1067	Fire Control Panel - Replacements	2019	2-25
1103	Flooring - Vinyl Tile, Replacements (Hallways)	2026	2-23
1102	Gutters & Downspout - Replacements	2025	2-30
1095	Hot Water Heater - Replacements	2018	2-25
1112	Monument Sign - Replacements	2025	2-35
1107	Roof - Flat Rubber Membrane, (Commercial, 2000)	2020	2-15
1108	Roof - Flat Rubber Membrane, (Commercial, 2011)	2031	2-16
1004	Roofs - Asphalt Shingle, Bldgs., Schedule #1	2022	2-18
1096	Roofs - Asphalt Shingle, Bldgs., Schedule #2	2023	2-19
1097	Roofs - Asphalt Shingle, Bldgs., Schedule #3	2025	2-20
1098	Roofs - Asphalt Shingle, Bldgs., Schedule #4	2025	2-21
1109	Siding - Wood Clapboard, Commercial Bldgs.	2018	2-30
1105	Unit Appliance - Replacements	2018	2-23
1104	Unit Interior - Refurbishments	2018	2-24
1019	Vinyl Siding - Replacements	2045	2-31
1076	Window - Replacements, Schedule #1	2045	2-32
1099	Window - Replacements, Schedule #2	2046	2-32
1100	Window - Replacements, Schedule #3	2047	2-33
1101	Window - Replacements, Schedule #4	2048	2-33
	Total Funded Assets	23	
	Total Unfunded Assets	<u>1</u>	
	Total Assets	24	

Sample Apartments MCA Asset Summary Report

Description	Asset ID	Date In Service	Current Cost	Useful Life	Adjustment	Remaining	Future Cost	Quantity	Unit Cost
Streets/Asphalt									
Drive/Parking Area - Asphalt Overla..	1001	2030	60,267	25	0	12	76,433	50751 @	4.75
Roofing									
Roof - Flat Rubber Membrane, (Co..	1107	2020	177,056	20	0	2	184,209	1 @	177,056.00
Roof - Flat Rubber Membrane, (Co..	1108	2031	36,190	20	0	13	46,816	1 @	36,190.00
Roofs - Asphalt Shingle, Bldgs., Sche..	1004	2022	103,362	30	-3	4	111,882	1 @	103,362.00
Roofs - Asphalt Shingle, Bldgs., Sche..	1096	2023	88,998	30	-2	5	98,261	1 @	88,998.00
Roofs - Asphalt Shingle, Bldgs., Sche..	1097	2025	88,998	30	0	7	102,231	1 @	88,998.00
Roofs - Asphalt Shingle, Bldgs., Sche..	1098	2025	53,856	30	0	7	61,864	1 @	53,856.00
Interior Furnishings									
Flooring - Vinyl Tile, Replacements (..	1103	2026	70,200	30	24	8	82,250	1 @	70,200.00
Unit Appliance - Replacements	1105	2018	14,000	1	0	0	14,000	1 @	14,000.00
Unit Interior - Refurbishments	1104	2018	96,000	1	0	0	96,000	1 @	96,000.00
Equipment									
Fire Control Panel - Replacements	1067	2019	132,000	20	0	1	134,640	1 @	132,000.00
Hot Water Heater - Replacements	1095	2018	9,600	1	0	0	9,600	12 @	800.00
Building Components									
Access Keypad - Replacements	1060	2024	46,800	20	32	6	52,704	1 @	46,800.00
Brick Siding - Repointing (All Bldgs.)	1110	2018	14,663	5	0	0	14,663	1 @	14,663.00
Doors - Main Entrance, Replacemen..	1073	2026	13,680	30	24	8	16,028	1 @	13,680.00
Gutters & Downspout - Replacements	1102	2025	66,480	30	0	7	76,365	1 @	66,480.00
Siding - Wood Clapboard, Commerci..	1109	2018	86,184	40	0	0	86,184	1 @	86,184.00
Vinyl Siding - Replacements	1019	2045	54,720	40	0	27	93,401	6080 @	9.00
Window - Replacements, Schedule #1	1076	2045	79,848	40	0	27	136,291	1 @	79,848.00
Window - Replacements, Schedule #2	1099	2046	79,848	40	0	28	139,017	1 @	79,848.00
Window - Replacements, Schedule #3	1100	2047	79,848	40	0	29	141,798	1 @	79,848.00
Window - Replacements, Schedule #4	1101	2048	74,958	40	0	30	135,776	1 @	74,958.00
Grounds Components									
Monument Sign - Replacements	1112	2025	9,000	15	0	7	10,338	3 @	3,000.00
Comments									
Comments	1111	Unfunded							