

Reserve Fund Analysis Report
New Study with Site Visit
Abbey Moor HOA
Trophy Club, TX



Report #:	9340
Inspection Date:	January 5, 2019
For Year Beginning:	January 1, 2019
For Year Ending:	December 31, 2019
Date Prepared:	October 30, 2019
Prepared by:	Richard Hamilton RS, PRA
Report Status:	DRAFT 2





October 30, 2019

Abbey Moor HOA
Trophy Park Dr.
Trophy Club, TX 76262

Dear Manager and Board,

We are pleased to provide you with the enclosed reserve study report for Abbey Moor HOA. This reserve study adheres to the Community Association Institute's (CAI) standards regarding service levels and disclosures.

The report has been divided into five easy-to-understand sections:

Executive Summary, provides an overview of the Association's current physical condition and financial situation, outlining significant findings and conclusions. This section of the report should be used as a quick reference in helping the reader to understand the parameters and results of the study.

Part I, Reserve Study Methodology, details the framework, methods, and materials used in developing the reserve study and the associated funding plan. This part provides a comprehensive understanding of the methodology and the process taken to develop the report.

Part II, Financial Analysis, examines report funding and results with projections for individual reserve component expenses and recommended funding.

Part III, Physical Analysis, provides in-depth, detailed condition assessments for each reserve component along with maintenance recommendations and depreciation schedules based on estimated useful life, remaining useful life and current replacement costs.

Part IV, General Information, provides a detailed explanation of the terms and definitions used within the report as well as a Frequently Asked Questions and explanation of Limitations sections.

Part V, Member's Summary, includes all the information necessary to keep your Association Members informed of the financial condition of the Association in a short, concise handout.

Three funding models are presented in detail. **Community Association Reserves recommends that the Board adopt a 100% Funding Plan whenever possible**, but a 70% Threshold alternative is included and will be presented to the Board should the current financial position of the community not allow for 100% full funding.

As you review the report and detail information, please feel free to contact our office with any questions that may arise.

Sincerely,

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Community Association Reserves
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TABLE OF CONTENTS
Abbey Moor HOA

Executive Summary	E-1
PART I - RESERVE STUDY METHODOLOGY	
The Reserve Study Process	1-1
PART II - FINANCIAL ANALYSIS	
Summary of the Financial Analysis	2-1
Current Assessment Funding Summary	2-2
Current Assessment Funding Projection	2-3
100% Funding Summary	2-4
100% Component Funding Projection	2-5
70% Threshold Funding Summary	2-6
70% Threshold Funding Projection	2-7
Baseline Funding Summary	2-8
Baseline Funding Projection	2-9
Funding Comparison by Percent Funded (Chart)	2-10
Funding Reserve Ending Balance Comparison (Chart)	2-11
Annual Expenses VS Funding Assessment (Chart)	2-12
Annual Projects Detail	2-13
Annual Expenditure Spreadsheet	2-15
PART III - COMPONENT ANALYSIS	
Inventory Summary Report	3-1
Inventory by Remaining Life	3-2
Asset Current Cost by Category (Chart)	3-3
Asset Index	3-4
Component Inventory Detail	3-5
PART IV - GENERAL INFORMATION	
Implementing Your Study	4-1
General Information and FAQ's	4-3
Definitions of Terms Used	4-6

TABLE OF CONTENTS
Abbey Moor HOA

Disclosures and Limitations ----- 4-9

PART V - MEMBER'S SUMMARY

Member's Summary ----- 5-1

Member's Inventory Summary ----- 5-2

Executive Summary

Purpose of Reserve Study

The purpose of this study is to provide the Association with an inventory of reserve components that require periodic repair and replacement and a reserve funding plan to offset the associated costs of these projects. This report provides condition assessments and maintenance schedules for each reserve component to assist the association in making budget decisions regarding reserve funding.

The Board of Directors has a fiduciary responsibility to maintain and preserve the value of common area assets belonging to the entity. As part of their fiduciary duty, board members are responsible for the long-term planning and funding of future major repairs and replacements of community assets.

This reserve study adheres to the Community Association Institute's (CAI) standards regarding service levels and disclosures. This report complies with The American Institute of Certified Public Accountants (AICPA) guidelines for Common Interest Realty Associations. Recommendations and accompanying assumptions are the results of information provided to Community Association Reserves (CAR) and assembled for the Association's use.

Community Description:

Abbey Moor HOA is a Master Association, developed in approximately 2011. The community consists of an entrance area with monuments and planters, landscaped areas and brick screen walls. The community is in overall good condition and appears well maintained.

Summary of the Reserve Study

The study provides an overview of the Association's current physical condition and financial situation, outlining significant findings and conclusions. It details the framework, methods, and materials used in developing the reserve study and the associated funding plan. The Financial Analysis examines reports findings and results with projections for individual reserve component expenses and recommended funding. The Physical Analysis provides an in-depth, detailed condition assessments for each reserve component along with maintenance recommendations based on the estimated useful life (UL), remaining useful life (RUL) and current replacement costs.

Association Information:

Association Name:	Abbey Moor HOA
Association Location:	Trophy Club, TX
Association Type:	Master Association
Number of Units:	184
Report Period:	2019 - 2048
Inspection Date:	January 5, 2019

Economic Information:

Annual Inflation Rate for this Report:	2.80%
Annual Interest on Funds for this Report:	1.00%
Reserve Beginning Balance:	\$25,334
Fully Funded Reserve Balance:	\$57,748

Current Percent Funded:	44%
Current Contribution:	\$3,000 annually

Reserve Funding Status:

Your fund status position is **Fair**. Your association has achieved this status because your current percent funded (your reserve fund bank balance divided by your fully funded balance) is **44%**. Reserve funds are generally classified into three categories: "weak" at 0% to 30% funded, "fair" at 31% to 69% funded and "strong" if your funding is 70% or above. Percent funded is a measurement of risk to the association members. Risk includes: a large increase in dues, a special assessment to the members, or loss in home value due to deterioration or loss of community assets.

Our recommendation is generally a 100% funding plan which means that for every dollar of deterioration that occurs within a community, the current membership - those that benefit directly from that asset, will place a dollar in the bank to offset that cost. This is the "fairest" method of funding, as a lower percentage will place a higher burden on a future membership when a replacement is due.

Plan Funding Recommendations:

Plan Option	Contribution annually	Contribution Per Unit	Ending % Funded	Special Assessment
Current Plan	\$3,000	\$16.30	-252%	None
100% Funding	\$11,050	\$60.05	100%	None
70% Funding	\$10,475	\$56.93	73%	None
Baseline Funding	\$10,475	\$56.93	73%	None

Five (5) Year Snapshot:

Plan Year	Annual Contribution	Annual Expenditures	Ending Cash Balance	Ending Percent Funded	Special Assessment
2019	\$11,050	\$0	\$36,748	55%	None
2020	\$11,381	\$0	\$48,611	63%	None
2021	\$11,723	\$2,642	\$58,269	69%	None
2022	\$12,075	\$0	\$71,047	75%	None
2023	\$12,437	\$0	\$84,318	79%	None

An Important Note Regarding Expense Cycling:

As the Board reviews the report and projected expenses, notice that several components are denoted as "partial" or "part" replacements. This indicates that this particular component has been "cycled" and is not scheduled for full replacement. This may be the result of similar components that were placed in service at different times, or in many cases, a long-lived component that would not otherwise be reflected in the replacement projections. An example of this would be concrete, which typically has a useful life of 50-75 years, and may not otherwise be reflected in a 30-year projection window.

It is important to understand that cycling serves as a flag to the Board as well as future Boards that the component is accumulating funds. Those funds may or may not be necessary when the cycle ends. Since cost projections are based on the total life of a component, it is important that if funds are not needed at the end of a cycle period, they remain intact as they will be necessary at a future date. Conversely, if funds are needed prior

to the end of a cycle, they are available for use, but a record of the use should be noted in the Community's financials indicating that that portion of the cycled amount has been spent.

PART I
RESERVE STUDY METHODOLOGY

The Reserve Study Process

A Reserve Study is the art and science of anticipating, and preparing for, an association's major common area repair and replacement expenses. Partially art, because we are making projections about the future. Partially science, because the work is a combination of research and well-defined computations, following consistent National Reserve Study Standards.

The foundation of this and every Reserve Study is your Reserve Component List (the items that you are reserving for). This is because the Reserve Component List defines the *scope and schedule* of all your anticipated upcoming Reserve projects. Based on that List and your starting balance, we calculate the association's Reserve Fund Strength (reported in terms of "Percent Funded"). Then we compute a Reserve Funding Plan to provide for the Reserve needs of the association. These form the results of your Reserve Study.

It is important to keep in mind that reserve contributions are not "for the future". Reserve contributions are designed to offset the ongoing, daily deterioration of your Reserve assets. Done well, a stable, budgeted Reserve Funding Plan will collect sufficient funds from the owners who enjoyed the use of those assets, so the association is financially prepared for the irregular expenditures scattered through future years when important assets eventually require replacement.

The Component Analysis

Determination of what constitutes a reserve component is dependent on a number of factors. A four-part test is generally used to distinguish a reserve item from an operational or maintenance expense. A component is included as a reserve item only if it satisfies ALL criteria outlined below:

- It is the Association's responsibility to maintain.
- It has a predictable useful service life.
- Its useful life fits within the projection period.
- Its cost for repair or replacement meets a pre-determined threshold amount.

The components that an Association includes in its reserve funding plan are also dependent on the type of project, the construction properties and the Association's applicable governing documents and state statutes.

Component Useful Life

The useful life of a reserve component relates to the number of years it is expected to last, given reasonable care and maintenance. The prediction of reserve and building component life can be no more than an informed estimate based upon information made available at the time of the site visit. Consideration is given to vendor recommendations, material warranty information provided at the time of the report's development, along with other published sources. The data and service life estimates in this report are based on information gathered from various groups and industry sources as outlined below:

- Historical data from the Association;
- Community Managers, Board Members and Service Personnel;
- Manufacturer recommendations and industry standards;
- Published sources of service life data;
- Manufacturers and suppliers' data.

Component Remaining Useful Life

The remaining life of a reserve component refers to the number of years left before an item's expected repair or replacement. A component's remaining life is contingent upon the following factors:

- Age/years in service;
- Physical condition;
- Frequency and quality of inspections and maintenance;
- General use;
- Environment, impact of weather and building location;
- Installation methods that meets or exceed industry standards;
- Design and quality of materials used.

In addition to deterioration or anticipated failure of a component, the longevity may be impacted by obsolescence. The accuracy of the estimate is contingent upon reliable information made available at the time of the report. It is important to note that even with the highest degree of diligence and experience, outcomes will vary, and no guarantee can be given as to the timing or service life of the reserve components. All service life assessments in this report are based on the assumption that maintenance is carried out in accordance with manufacturer's recommendations and installation instructions, together with industry standards of workmanship. Consideration is given to visible design and signs of improper installation of components that will have an impact upon the anticipated service life of the component.

The Financial Analysis

An Association, like any business entity, must prepare financially for the replacement and repair of its assets. Reserve study funding analysis is an important part of the annual budget process. Reserve funding should be reviewed at least once annually to help determine the annual assessment to be charged to members. The following elements are used in the financial analysis.

Recommended Funding Rate. We advocate a program of regular reserve fund contributions and promote a gradual means of reserving for future repair and replacement expenses. Recommended contributions are set at a level where they require only minor annual increases. The rate is designed to distribute the anticipated cost of common property ownership equitably between all members over the entire projection period.

Fully Funded Balance. The Fully Funded balance is equal to the total depreciable cost of all the Association's reserve components. It is determined by dividing each reserve component's cost by its useful life, and multiplying that by the number of years the component has been in service (effectively its age). The recommendations in this report are based upon a Fully Funded plan, which sets the goal of achieving one hundred percent fully funded reserves by the end of the 30-year projection period. *We recommend full funding as we feel that this approach best provides a solid platform to address future needs*, thus dramatically reducing the need for special assessments or major contribution increases.

Percent Funded. An Association's reserve fund status is assessed by comparing the ratio of actual or projected funds available versus how much they should have saved. The result is presented as a percentage and is commonly known as "percent funded". Percent funded is calculated by dividing the Association's current reserve fund balance by the fully funded balance. This equation is an industry measure of how well prepared an Association is to meet its current and future repair and replacement obligations. Percent funded highlights the strength of the association's reserve account in relation to the anticipated costs of repair and replacement.

Reserve Component Cost. Current cost estimates for reserve components are derived from a variety of

sources but typically are based on the latest local vendor pricing acquired from regional contractors and suppliers. When needed, additional information and cost data is sourced from national construction estimators. All cost estimates formulated from national estimators are based upon the latest specific geographical information for the area. Future cost estimates are determined by applying the assumed annual inflation rate to the current cost of each component.

Inflation Rate. The effect of inflation on the cost of reserve components is a key factor in the financial projections. Historically, the cost of construction materials and labor rise at a higher rate than that experienced by the general economy. We have chosen to use an inflationary multiplier that is somewhat higher than the current general consumer index for inflation. The rate used is based upon the historical average of inflation over the last 30 years. This rate reflects a realistic appreciation of future costs for reserve components and assists the Association in adequately budgeting for increasing cost.

Interest Rate. The interest rate used in this report is formulated on a conservative rate of return. Unless otherwise advised by the Association, an assumed net interest rate of 1.00% is used. We offer no guarantee or opinion in relation to investment decisions made by the Association or the rate of return achieved.

Current Reserve Fund Balance. The analysis, recommendations, and financial projections made within this report are heavily reliant on information provided by the Association and its representatives. The starting reserve fund balance (current or projected) and member contribution totals are supplied by these sources. This information has not been audited nor have the financial projections or recommendations.

Reserve Plan Goals

According to National Reserve Study Standards, there are four Funding Principles to balance in developing your Reserve Funding Plan.

- Our first objective is to design a plan that provides you with sufficient cash to perform your Reserve projects in a timely manner.
- Second, a stable contribution is because it keeps these naturally irregular expenses from unsettling the budget.
- Reserve contributions that are evenly distributed over current and future owners enable each owner to pay their fair share of the association's Reserve expenses over the years.
- And finally, we develop a plan that is fiscally responsible and safe for Board members to recommend to their association.

Remember, it is the Board's duty to provide for the ongoing care of the common areas. Board members invite liability exposure when Reserve contributions are inadequate to offset ongoing common area deterioration.

The Reserve Funding Plan must provide adequate funds when they are expected to be required at a future point in time. If \$100,000 is needed in five years for a new roof, the Funding Plan should yield a Reserve Balance of at least \$100,000 in that year. Because associations are corporations and their members expect and deserve the corporation to be run in a stable manner, it is important that the budget be designed for year to year stability. Large assessment changes from year to year indicate instability,

and homeowners deserve a degree of stability in order to plan their own budgets.

Reserve Funding and Risk

Reserve adequacy is not measured in cash terms. Reserve adequacy is determined when the *amount* of current Reserve cash is compared to Reserve component deterioration (the *needs of the association*). Having *enough* means the association can execute its projects in a timely manner with existing Reserve funds. *Not having *enough* typically creates deferred maintenance, large increases in assessments, special assessments or a loss in property value.

Adequacy is measured in a two-step process:

- Calculate the *value of deterioration* at the association (called Fully Funded Balance, or FFB).
- Compare that to the Reserve Fund Balance and expressed as a percentage.

Each year, the *value of deterioration* at the association changes. When there is more deterioration (as components approach the time they need to be replaced), there should be more cash to offset that deterioration and prepare for the expenditure. Conversely, the *value of deterioration* shrinks after projects are accomplished. The *value of deterioration* (the FFB) changes each year, and is a moving but predictable target.

There is a high risk of special assessments and deferred maintenance when the Percent Funded is *weak*, below 30%. Approximately 30% of all associations are in this high-risk range. While the 100% point is Ideal (indicating Reserve cash is equal to the *value of deterioration*), a Reserve Fund in the 70% -130% range is considered strong (low risk of special assessment).

Measuring your Reserves by Percent Funded tells how well prepared your association is for upcoming Reserve expenses.

PART II
FINANCIAL ANALYSIS

Summary of the Financial Analysis

Current Fully Funded Balance: \$57,747.66
Current Reserve Fund Balance: \$25,334.00
Current Percent Funded: 44%
Current Contribution Annually: \$3,000.00 **Per Unit:** \$16.30

There are three basic funding strategies from which most associations select. It is recommended that associations consult professionals to determine the best strategy or combination of plans that best suit the association's need. Additionally, associations should consult with their financial advisor to determine the tax implications of selecting a particular plan. Further, consult with the American Institute of Certified Public Accountants (AICPA) for their reporting requirements.

The three funding plans and descriptions of each are detailed below. Associations will need to update their reserve studies more or less frequently depending on the funding strategy they select.

• **Full funding (Recommended)** —The goal of this funding strategy is to attain and maintain the reserves at or near 100 percent. For example, if an association has a component with a 10-year life and a \$10,000 replacement cost, it should have \$3,000 set aside for its replacement after three years ($\$10,000 \div 10 \text{ years} = \$1,000$ per year $\times 3 \text{ years} = \$3,000$). In this case, \$3,000 equals full funding.

Target Contribution Annually: \$11,050.00 **Per Unit:** \$60.05

• **Threshold funding (Alternative)** —This method is based on the baseline funding concept. The minimum reserve cash balance in threshold funding; however, is set at a predetermined percentage of the required dollar amount. We will generally attempt to place the association funding between 65% and 75% funded, which will place them in a "strong" funding position. Using the previous example, if an association has a component with a 10-year life and a \$10,000 replacement cost, it should have \$3,000 set aside for its replacement after three years to achieve 100% funding. In the case of a 70% funding threshold, \$2,100 ($\$3,000 \times 70\%$) would need to be set aside to achieve the funding goal.

Target Contribution Annually: \$10,475.00 **Per Unit:** \$56.93

• **Baseline funding (Not Recommended)** —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 does not drop below zero during the projected period. An association 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. Associations can implement this funding method more safely by conducting annual reserve updates that include field observations.

Target Contribution Annually: \$10,475.00 **Per Unit:** \$56.93

It is up to the Board to select a plan that best suits the association and its long term goals. For comparison purposes, we have included a **Current Assessment Funding** plan, which is a projection of the association's financial health based on the plan in place without modification. This can be a base of comparison when selecting a plan. It may also demonstrate why change is needed.

Abbey Moor HOA
Trophy Club, TX
Current Assessment Funding Summary

Report Date	October 30, 2019
Account Number	9340
Version	3.0
Budget Year Beginning	January 1, 2019
Budget Year Ending	December 31, 2019
Total Units	184
Phase Development	1 of 1

<i>Report Parameters</i>	
Inflation	2.80%
Annual Assessment Increase	3.00%
Interest Rate on Reserve Deposit	1.00%
2019 Beginning Balance	\$25,334

Current Assessment Funding Summary

This is the community's **current funding plan**, based upon your current Reserve Contribution. This analysis will be used as a base comparison to the Fully Funded plan (100% Funding) and the Threshold plan (70% Funding) to offer a comparison of the study results and their effects upon the community and contributions.

In this summary, we have used the current level of Reserve Contributions and completed a full 30-year analysis based upon our component findings.

<i>Current Assessment Funding Model Summary of Calculations</i>	
Required Annual Contribution	\$3,000.00
<i>\$16.30 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$283.34</u>
Total Annual Allocation to Reserves	\$3,283.34
<i>\$17.84 per unit annually</i>	

**Abbey Moor HOA
Current Assessment Funding Projection**

Beginning Balance: \$25,334

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2019	3,000	283		28,617	67,085	43%
2020	3,090	317		32,024	76,900	42%
2021	3,183	326	2,642	32,891	84,496	39%
2022	3,278	362		36,531	95,249	38%
2023	3,377	399		40,306	106,538	38%
2024	3,478	438		44,222	118,385	37%
2025	3,582		97,367	-49,563	33,578	
2026	3,690		6,066	-51,940	40,588	
2027	3,800			-48,139	54,376	
2028	3,914			-44,225	68,904	
2029	4,032			-40,193	84,203	
2030	4,153			-36,041	100,305	
2031	4,277		20,893	-52,657	95,764	
2032	4,406			-48,251	112,970	
2033	4,538		7,360	-51,073	123,498	
2034	4,674			-46,399	142,305	
2035	4,814		128,335	-169,920	30,141	
2036	4,959		3,022	-167,984	44,099	
2037	5,107			-162,876	62,008	
2038	5,261			-157,616	80,887	
2039	5,418			-152,198	100,773	
2040	5,581			-146,617	121,710	
2041	5,748		13,769	-154,638	129,586	
2042	5,921			-148,717	152,358	
2043	6,098			-142,618	176,304	
2044	6,281			-136,337	201,472	
2045	6,470		169,151	-299,018	54,023	
2046	6,664			-292,355	76,916	
2047	6,864			-285,491	101,048	
2048	7,070		11,137	-289,558	115,022	

Abbey Moor HOA
Trophy Club, TX
100% Funding Summary

Report Date	October 30, 2019
Account Number	9340
Version	3.0
Budget Year Beginning	January 1, 2019
Budget Year Ending	December 31, 2019
Total Units	184
Phase Development	1 of 1

<i>Report Parameters</i>	
Inflation	2.80%
Annual Assessment Increase	3.00%
Interest Rate on Reserve Deposit	1.00%
2019 Beginning Balance	\$25,334

100% Funding Summary

The 100% funding plan, also called the fully funded plan, is based upon the "fairest" funding method. This plan anticipates that for each dollar of deterioration that occurs within the community, the current membership that is benefiting from those assets will place one dollar in the bank to offset that deterioration.

This analysis is our **recommended funding level**. It will present the least risk to the association members and ensure a strong financial position in the future.

<i>100% Funding Model Summary of Calculations</i>	
Required Annual Contribution	\$11,050.00
<i>\$60.05 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$363.84</u>
Total Annual Allocation to Reserves	\$11,413.84
<i>\$62.03 per unit annually</i>	

**Abbey Moor HOA
100% Component Funding Projection**

Beginning Balance: \$25,334

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2019	11,050	364		36,748	67,085	55%
2020	11,381	481		48,611	76,900	63%
2021	11,723	577	2,642	58,269	84,496	69%
2022	12,075	703		71,047	95,249	75%
2023	12,437	835		84,318	106,538	79%
2024	12,810	971		98,100	118,385	83%
2025	13,194	139	97,367	14,066	33,578	42%
2026	13,590	216	6,066	21,806	40,588	54%
2027	13,998	358		36,161	54,376	67%
2028	14,418	506		51,085	68,904	74%
2029	14,850	659		66,595	84,203	79%
2030	15,296	819		82,709	100,305	82%
2031	15,755	776	20,893	78,346	95,764	82%
2032	16,227	946		95,519	112,970	85%
2033	16,714	1,049	7,360	105,922	123,498	86%
2034	17,216	1,231		124,369	142,305	87%
2035	17,732	138	128,335	13,904	30,141	46%
2036	18,264	291	3,022	29,437	44,099	67%
2037	18,812	482		48,732	62,008	79%
2038	19,376	681		68,789	80,887	85%
2039	19,958	887		89,634	100,773	89%
2040	20,556	1,102		111,292	121,710	91%
2041	21,173	1,187	13,769	119,883	129,586	93%
2042	21,808	1,417		143,108	152,358	94%
2043	22,462	1,656		167,226	176,304	95%
2044	23,136	1,904		192,266	201,472	95%
2045	23,830	469	169,151	47,414	54,023	88%
2046	24,545	720		72,679	76,916	94%
2047	25,282	980		98,941	101,048	98%
2048	26,040	1,138	11,137	114,982	115,022	100%

Abbey Moor HOA
Trophy Club, TX
70% Threshold Funding Summary

Report Date	October 30, 2019
Account Number	9340
Version	3.0
Budget Year Beginning	January 1, 2019
Budget Year Ending	December 31, 2019
Total Units	184
Phase Development	1 of 1

<i>Report Parameters</i>	
Inflation	2.80%
Annual Assessment Increase	3.00%
Interest Rate on Reserve Deposit	1.00%
2019 Beginning Balance	\$25,334

70% Funding Summary

The 70% funding plan, also called the threshold funded plan, is based upon a modified funding method. This plan anticipates that for each dollar of deterioration that occurs within the community, the current membership that is benefiting from those assets will place seventy cents in the bank to offset that deterioration.

This analysis is **an alternative funding level** which seeks to keep the association in a strong financial position, but does present a bit of risk. If components experience a failure earlier than anticipated due to influences outside of the community's control (such as workmanship or weather) the members may be placed in a position where a special assessment is required to make repairs. It also pushes a portion of deterioration down the road to a membership that has not fully benefited from a particular asset.

<i>70% Threshold Funding Model Summary of Calculations</i>	
Required Annual Contribution	\$10,475.00
<i>\$56.93 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$358.09</u>
Total Annual Allocation to Reserves	\$10,833.09
<i>\$58.88 per unit annually</i>	

Abbey Moor HOA
70% Threshold Funding Projection

Beginning Balance: \$25,334

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2019	10,475	358		36,167	67,085	54%
2020	10,789	470		47,426	76,900	62%
2021	11,113	559	2,642	56,456	84,496	67%
2022	11,446	679		68,581	95,249	72%
2023	11,790	804		81,175	106,538	76%
2024	12,143	933		94,251	118,385	80%
2025	12,508	94	97,367	9,486	33,578	28%
2026	12,883	163	6,066	16,465	40,588	41%
2027	13,269	297		30,032	54,376	55%
2028	13,667	437		44,137	68,904	64%
2029	14,078	582		58,796	84,203	70%
2030	14,500	733		74,029	100,305	74%
2031	14,935	681	20,893	68,751	95,764	72%
2032	15,383	841		84,975	112,970	75%
2033	15,844	935	7,360	94,394	123,498	76%
2034	16,320	1,107		111,821	142,305	79%
2035	16,809	3	128,335	299	30,141	1%
2036	17,314	146	3,022	14,736	44,099	33%
2037	17,833	326		32,895	62,008	53%
2038	18,368	513		51,775	80,887	64%
2039	18,919	707		71,401	100,773	71%
2040	19,487	909		91,797	121,710	75%
2041	20,071	981	13,769	99,080	129,586	76%
2042	20,673	1,198		120,951	152,358	79%
2043	21,294	1,422		143,667	176,304	81%
2044	21,932	1,656		167,255	201,472	83%
2045	22,590	207	169,151	20,901	54,023	39%
2046	23,268	442		44,611	76,916	58%
2047	23,966	686		69,262	101,048	69%
2048	24,685	828	11,137	83,639	115,022	73%

Abbey Moor HOA
Trophy Club, TX
Baseline Funding Summary

Report Date	October 30, 2019
Account Number	9340
Version	3.0
Budget Year Beginning	January 1, 2019
Budget Year Ending	December 31, 2019
Total Units	184
Phase Development	1 of 1

<i>Report Parameters</i>	
Inflation	2.80%
Annual Assessment Increase	3.00%
Interest Rate on Reserve Deposit	1.00%
2019 Beginning Balance	\$25,334

Baseline Funding Summary

The baseline funding plan is a modified funding method and it is generally **NOT recommended** that the community embark upon this program.

This analysis is **an alternative funding level** which seeks to keep the reserve fund from dropping below zero at any point in time over the course of the study period. This plan present significant risk. If components experience the smallest failure earlier than anticipated, or repair or replacement pricing is greater than anticipated, the members will be placed in a position where a special assessment is required to make repairs.

This plan should only be used for associations that are severely underfunded as a temporary stepping stone into a more stable plan.

Baseline Funding Model Summary of Calculations

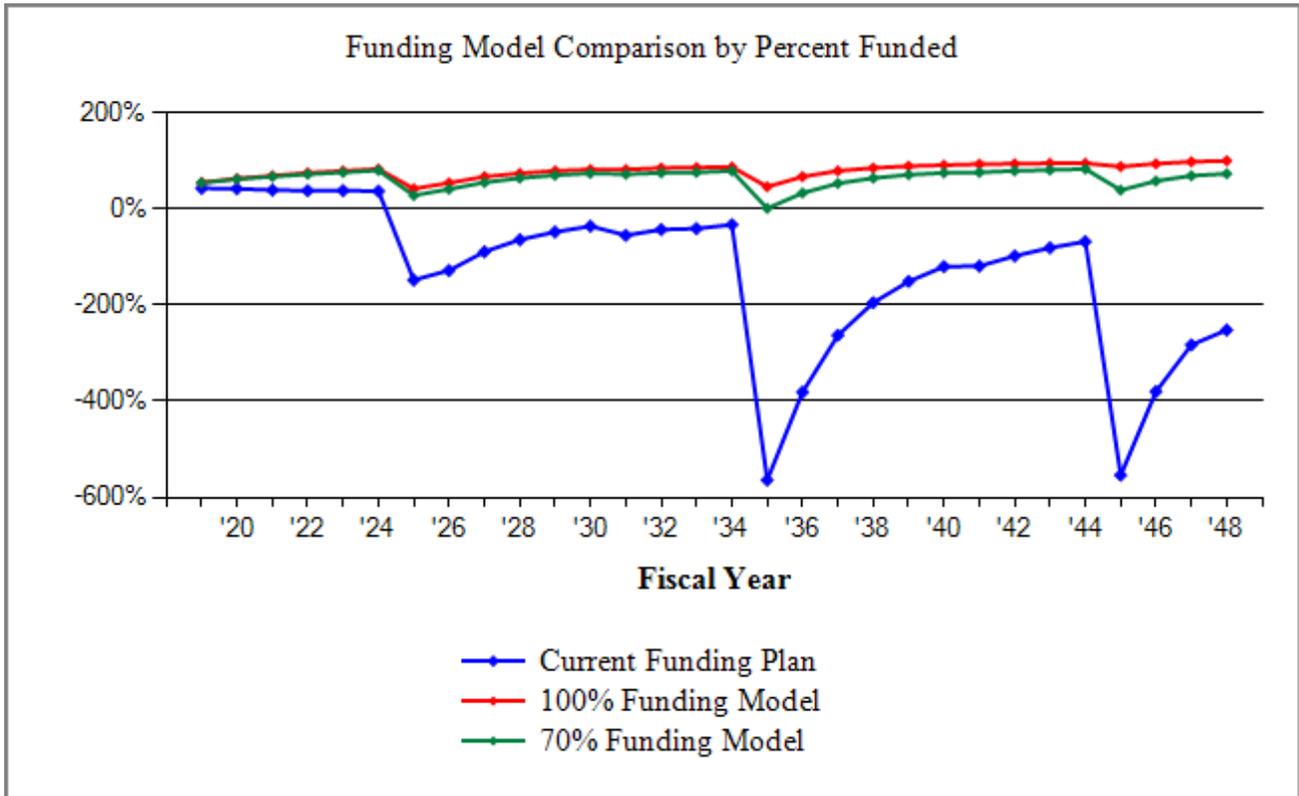
Required Annual Contribution	\$10,475.00
<i>\$56.93 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$358.09</u>
Total Annual Allocation to Reserves	\$10,833.09
<i>\$58.88 per unit annually</i>	

Abbey Moor HOA
Trophy Club, TX
Baseline Funding Projection

Beginning Balance: \$25,334

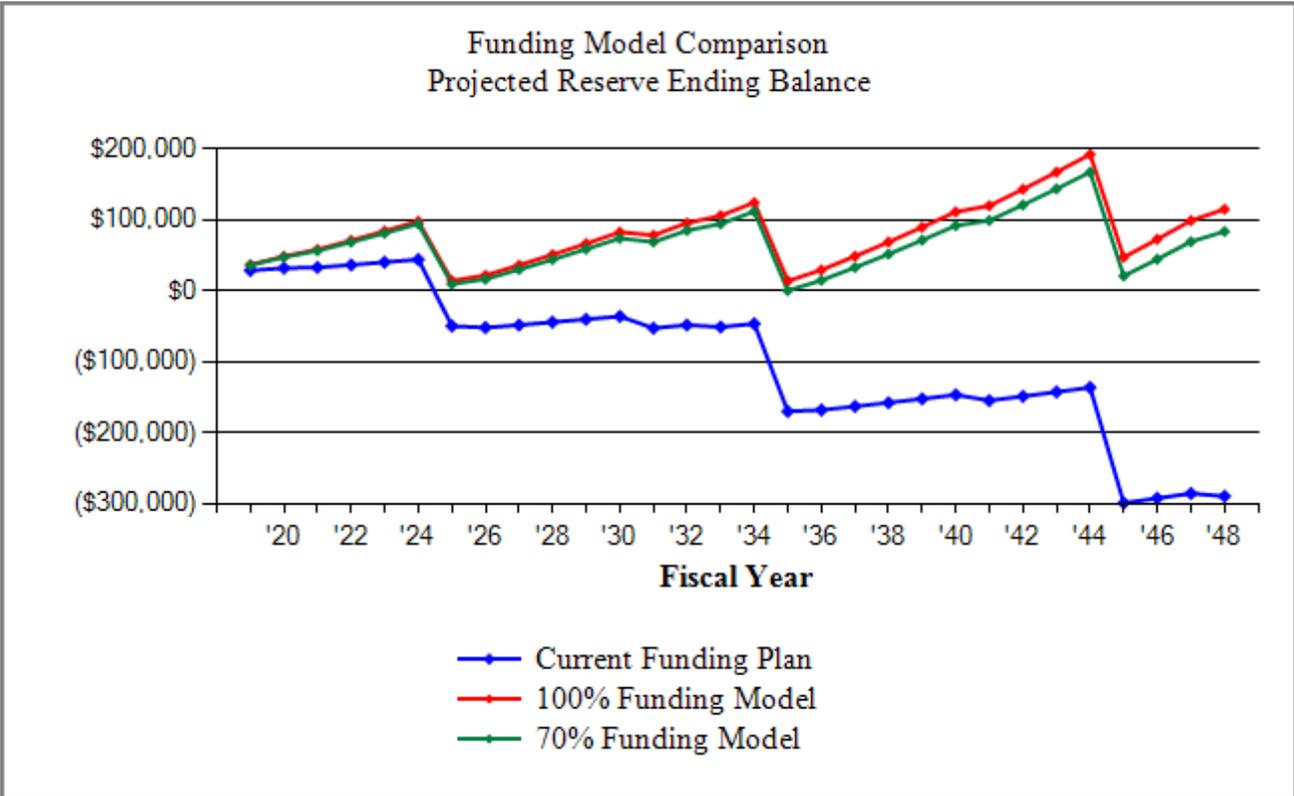
Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2019	10,475	358		36,167	67,085	54%
2020	10,789	470		47,426	76,900	62%
2021	11,113	559	2,642	56,456	84,496	67%
2022	11,446	679		68,581	95,249	72%
2023	11,790	804		81,175	106,538	76%
2024	12,143	933		94,251	118,385	80%
2025	12,508	94	97,367	9,486	33,578	28%
2026	12,883	163	6,066	16,465	40,588	41%
2027	13,269	297		30,032	54,376	55%
2028	13,667	437		44,137	68,904	64%
2029	14,078	582		58,796	84,203	70%
2030	14,500	733		74,029	100,305	74%
2031	14,935	681	20,893	68,751	95,764	72%
2032	15,383	841		84,975	112,970	75%
2033	15,844	935	7,360	94,394	123,498	76%
2034	16,320	1,107		111,821	142,305	79%
2035	16,809	3	128,335	299	30,141	1%
2036	17,314	146	3,022	14,736	44,099	33%
2037	17,833	326		32,895	62,008	53%
2038	18,368	513		51,775	80,887	64%
2039	18,919	707		71,401	100,773	71%
2040	19,487	909		91,797	121,710	75%
2041	20,071	981	13,769	99,080	129,586	76%
2042	20,673	1,198		120,951	152,358	79%
2043	21,294	1,422		143,667	176,304	81%
2044	21,932	1,656		167,255	201,472	83%
2045	22,590	207	169,151	20,901	54,023	39%
2046	23,268	442		44,611	76,916	58%
2047	23,966	686		69,262	101,048	69%
2048	24,685	828	11,137	83,639	115,022	73%

**Abbey Moor HOA
Funding Comparison by Percent Funded (Chart)**



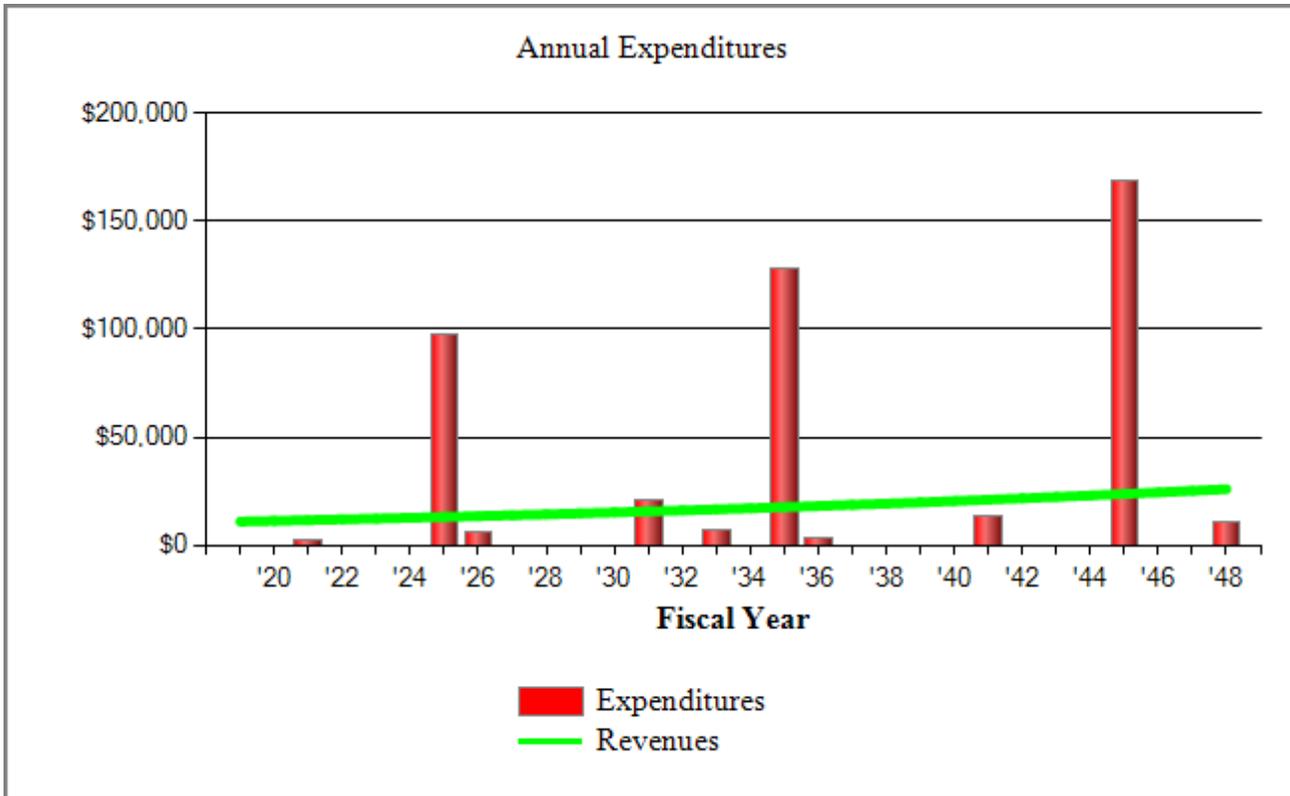
The chart above compares the three funding plans (Current Assessment Funding, Threshold Funding and 100% Component Funding) by the percent funded over 30 years. This allows your association to view and then choose the funding model that might best fit your community's needs.

**Abbey Moor HOA
Funding Reserve Ending Balance Comparison (Chart)**



The chart above compares the projected annual reserve fund ending balances for the three funding plans (Current Assessment Funding, Threshold Funding and 100% Component Funding) over the 30 year period.

**Abbey Moor HOA
Annual Expenses VS Funding Assessment (Chart)**



The Annual Expenditures graph demonstrates how the plan seeks to "flatten out" the periodic spikes that occur over time. This aids the Association in proper budget planning while ensuring funds are available to meet the future financial needs.

**Abbey Moor HOA
Annual Projects Detail**

Description	Expenditures
Replacement Year 2019	
Metal Surfaces - Paint	
Total for 2019	
<i>No Replacement in 2020</i>	
Replacement Year 2021	
Planter Walls/Grout - Repair (part)	2,642
Total for 2021	<u>\$2,642</u>
<i>No Replacement in 2022</i>	
<i>No Replacement in 2023</i>	
<i>No Replacement in 2024</i>	
Replacement Year 2025	
Brick Panel Fence - Repair/Replace (part)	97,367
Total for 2025	<u>\$97,367</u>
Replacement Year 2026	
Metal Surfaces - Paint	
Irrigation System - Replace (partial)	6,066
Total for 2026	<u>\$6,066</u>
<i>No Replacement in 2027</i>	
<i>No Replacement in 2028</i>	
<i>No Replacement in 2029</i>	
<i>No Replacement in 2030</i>	
Replacement Year 2031	
Planter Walls/Grout - Repair (part)	3,482
Monuments - Refurbish	17,411
Total for 2031	<u>\$20,893</u>
<i>No Replacement in 2032</i>	
Replacement Year 2033	
Metal Surfaces - Paint	
Trees/Vegetation - Replace (partial)	7,360
Total for 2033	<u>\$7,360</u>

**Abbey Moor HOA
Annual Projects Detail**

Description	Expenditures
<i>No Replacement in 2034</i>	
Replacement Year 2035	
Brick Panel Fence - Repair/Replace (part)	128,335
Total for 2035	\$128,335
Replacement Year 2036	
Metal Fence - Replace	3,022
Total for 2036	\$3,022
<i>No Replacement in 2037</i>	
<i>No Replacement in 2038</i>	
<i>No Replacement in 2039</i>	
Replacement Year 2040	
Metal Surfaces - Paint	
Total for 2040	
Replacement Year 2041	
Planter Walls/Grout - Repair (part)	4,590
Irrigation System - Replace (partial)	9,179
Total for 2041	\$13,769
<i>No Replacement in 2042</i>	
<i>No Replacement in 2043</i>	
<i>No Replacement in 2044</i>	
Replacement Year 2045	
Brick Panel Fence - Repair/Replace (part)	169,151
Total for 2045	\$169,151
<i>No Replacement in 2046</i>	
Replacement Year 2047	
Metal Surfaces - Paint	
Total for 2047	
Replacement Year 2048	
Trees/Vegetation - Replace (partial)	11,137
Total for 2048	\$11,137

**Abbey Moor HOA
Annual Expenditure Spreadsheet**

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Beginning Balance	51,085	66,595	82,709	78,346	95,519	105,922	124,369	13,904	29,437	48,732
Annual Assessment	14,850	15,296	15,755	16,227	16,714	17,216	17,732	18,264	18,812	19,376
Interest Earned	659	819	776	946	1,049	1,231	138	291	482	681
Expenditures			20,893		7,360		128,335	3,022		
Fully Funded Reserves	84,203	100,305	95,764	112,970	123,498	142,305	30,141	44,099	62,008	80,887
Percent Fully Funded	79%	82%	82%	85%	86%	87%	46%	67%	79%	85%
Ending Balance	66,595	82,709	78,346	95,519	105,922	124,369	13,904	29,437	48,732	68,789

Description

Irrigation System - Replace (partial)										
Trees/Vegetation - Replace (partial)					7,360					
Monuments - Refurbish			17,411							
Brick Panel Fence - Repair/Replace (part)							128,335			
Planter Walls/Grout - Repair (part)			3,482							
Metal Fence - Replace								3,022		
Metal Surfaces - Paint										

Year Total:

			20,893		7,360		128,335	3,022		
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**Abbey Moor HOA
Annual Expenditure Spreadsheet**

	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Beginning Balance	68,789	89,634	111,292	119,883	143,108	167,226	192,266	47,414	72,679	98,941
Annual Assessment	19,958	20,556	21,173	21,808	22,462	23,136	23,830	24,545	25,282	26,040
Interest Earned	887	1,102	1,187	1,417	1,656	1,904	469	720	980	1,138
Expenditures			13,769				169,151			11,137
Fully Funded Reserves	100,773	121,710	129,586	152,358	176,304	201,472	54,023	76,916	101,048	115,022
Percent Fully Funded	89%	91%	93%	94%	95%	95%	88%	94%	98%	100%
Ending Balance	89,634	111,292	119,883	143,108	167,226	192,266	47,414	72,679	98,941	114,982
Description										
Irrigation System - Replace (partial)			9,179							
Trees/Vegetation - Replace (partial)										11,137
Monuments - Refurbish										
Brick Panel Fence - Repair/Replace (part)							169,151			
Planter Walls/Grout - Repair (part)			4,590							
Metal Fence - Replace										
Metal Surfaces - Paint										
Year Total:			13,769				169,151			11,137

PART III

PHYSICAL ANALYSIS

The following pages contain descriptions of each identified reserve component maintained by the association. Each reserve component is shown with its estimated useful life, remaining life, and current cost to replace. Supporting information is included where applicable.

This information is analyzed by computer to produce the cash flow analysis and funding plans.

This component inventory and condition assessment information was obtained during an on-site visit on January 5, 2019 and via subsequent discussions with local contractors, board members or agents for the board. No destructive testing was done to determine the condition of the components that are not readily accessible (for example, sampling plumbing lines or flat roof core samples).

Remaining life estimates are based on typical useful life expectancy minus effective age of components (which may not be the same as chronological age). Published costs and life expectancies may also be used. No representation is made as to how much actual costs and actual life expectancies at the time of future replacement may differ from estimates contained herein. Because actual contractor bids vary considerably, it is entirely possible that the association may select a bid that is more costly or less costly than the estimates provided. Also note that contractor estimates discussed on the following pages are not to be interpreted as formal bids or as an endorsement of that particular contractor.

This on-site inspection is not to be considered as a project audit or quality inspection.

**Abbey Moor HOA
Inventory Summary Report**

Report Date October 30, 2019
 Beginning Fiscal Year January 01, 2019
 Account Number 9340

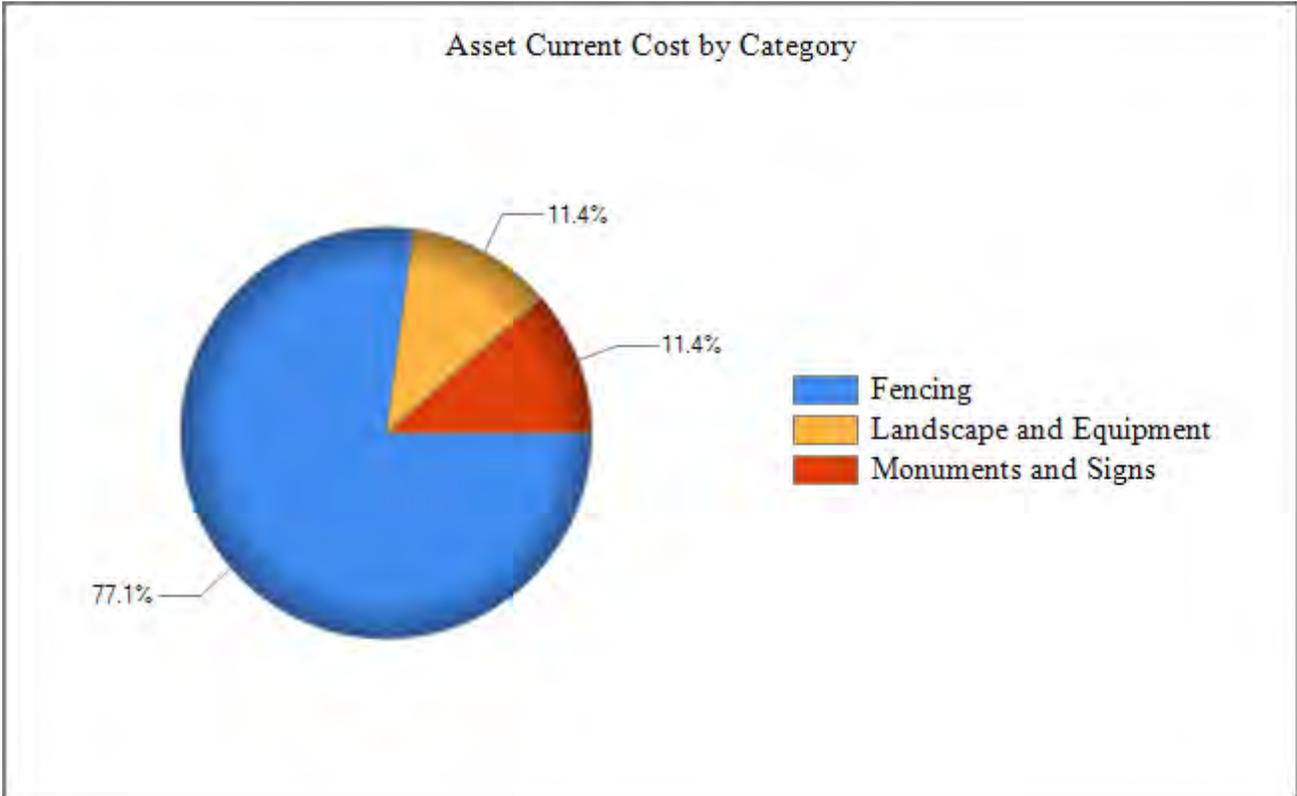
Version Number 3.0

Description	<i>Replace Year</i>	<i>Current Cost</i>	<i>Useful Life Adjustment</i>			<i>Remaining</i>	<i>Future Cost</i>	<i>Quantity</i>	<i>Unit Cost</i>
Irrigation System - Replace (partial)	2026	5,000	15	0	7	6,066	1 @	5,000.00	
Trees/Vegetation - Replace (partial)	2033	5,000	15	0	14	7,360	1 @	5,000.00	
Monuments - Refurbish	2031	12,500	20	0	12	17,411	5 @	2,500.00	
Brick Panel Fence - Repair/Replace (..	2025	82,500	10	4	6	97,367	2750 @	120.00	
Planter Walls/Grout - Repair (part)	2021	2,500	10	0	2	2,642	1 @	2,500.00	
Metal Fence - Replace	2036	1,890	25	0	17	3,022	28 @	67.50	
Metal Surfaces - Paint	2019		7	0	0		28 @		

**Abbey Moor HOA
Inventory by Remaining Life**

Description	Remaining Life	Replacement Year	Fully Funded Reserves
Metal Surfaces - Paint	0	2019	
Planter Walls/Grout - Repair (part)	2	2021	2,000
Brick Panel Fence - Repair/Replace (part)	6	2025	47,143
Irrigation System - Replace (partial)	7	2026	2,667
Monuments - Refurbish	12	2031	5,000
Trees/Vegetation - Replace (partial)	14	2033	333
Metal Fence - Replace	17	2036	605

Abbey Moor HOA
Asset Current Cost by Category (Chart)



The **Asset Cost by Category** chart assists the Association in identifying those components that have a high financial significance. The more time and effort that is spent with those significant items, the better off the fund will be in the long run. The implementation of a proper maintenance plan that will add even a few more years to the life of a significant component can have a dramatic effect on the overall plan.

**Abbey Moor HOA
Asset Index**

Description	Replacement	Page
Irrigation System - Replace (partial)	2026	3-5
Trees/Vegetation - Replace (partial)	2033	3-6
Monuments - Refurbish	2031	3-7
Brick Panel Fence - Repair/Replace (part)	2025	3-8
Planter Walls/Grout - Repair (part)	2021	3-9
Metal Fence - Replace	2036	3-10
Metal Surfaces - Paint	2019	3-11
Total Funded Assets	7	
Total Unfunded Assets	<u>0</u>	
Total Assets	7	

**Abbey Moor HOA
Component Inventory Detail**

Irrigation System - Replace (partial)

	Quantity	1	Allowance
	Asset Cost		\$5,000.00
	Percent Replacement		100%
	Future Cost		\$6,066.27
Landscape and Equipment			
Placed in Service	January 2011		
Useful Life	15		
Replacement Year	2026		
Remaining Life	7		



Irrigation system is typically repaired on an as-needed basis as part of the landscape contract. Occasionally, extensive repair and replacement of large sections of the irrigation system are necessary as provided herein. Anticipate an allowance to repair sections of the irrigation system or higher cost components such as clocks and backflow prevention devices.

**Abbey Moor HOA
Component Inventory Detail**

Trees/Vegetation - Replace (partial)

	Quantity	1
	Asset Cost	\$5,000.00
	Percent Replacement	100%
	Future Cost	\$7,359.93
Landscape and Equipment		
Placed in Service	January 2018	
Useful Life	15	
Replacement Year	2033	
Remaining Life	14	



Trees and vegetation vary in age and appear in overall good condition. A replacement project was recently completed. Funding is for ongoing replacement of trees and vegetation due to winter kill and disease. We recommend consulting with a licensed arborist prior to tree replacements.

**Abbey Moor HOA
Component Inventory Detail**

Monuments - Refurbish

		Quantity	5 Each
		Asset Cost	\$12,500.00
		Percent Replacement	100%
		Future Cost	\$17,411.15
	Monuments and Signs		
Placed in Service	January 2011		
Useful Life	20		
Replacement Year	2031		
Remaining Life	12		



The entry monuments and corner neighborhood monument are constructed of stone with cut metal lettering. Funding anticipates periodic repair to stone work. Name plates will need occasional cleaning, paint, repair and replacement as well. Masonry should be inspected regularly and grouted as necessary to prevent moisture penetration which will accelerate deterioration.

**Abbey Moor HOA
Component Inventory Detail**

Brick Panel Fence - Repair/Replace (part)

		Quantity	2,750 LF
		Asset Cost	\$82,500.00
		Percent Replacement	25%
		Future Cost	\$97,367.19
	Fencing		
Placed in Service	January 2011		
Useful Life	10		
Adjustment	4		
Replacement Year	2025		
Remaining Life	6		



Brick panel fencing is a significant repair item for most Texas communities and will deteriorate with time. Many techniques have been implemented to attempt to extend the life of these items with limited varying success. "Thin Wall" panels are lifted or installed into position resting in between columns. This allows the panels to "float" and move between columns in accordance to the hydraulic forces acting upon it, and/or movement from soils with a high "plasticity index" which are present in north Texas. The use of a reinforcing "L" bracket at the base, and highly elastic tensile strength mortar (type "S") provides for the flexibility of the wall to withstand the hydraulic load put upon it. The durability of the wall is highly influenced by the quality of the mortar joints and great care should be taken to ensure that dense joints are achieved. Joints should be tooled to a concave or a tight "V" finish to improve the bond between the mortar and the brick. "Raked" joints are not acceptable in the thin wall method.

Brick walls do not last forever and limited maintenance or no maintenance will result in a shortened life span. The mortar will require some observation to maintain its reliability and this may require "tuck-pointing" along with sealing. As a standard maintenance, it is advisable to periodically inspect the mortar for cracks, and plan for work on a three to five year cycle. Areas of pooling water and vegetation should not come in contact with the wall or columns. Where possible, irrigation systems should be directed away from the wall. Funding anticipates walls will enter a cycle of refurbishment due to age in the near future. This cycle will continue as the community ages, and timing and quality will need evaluation and adjustment in future reports.

**Abbey Moor HOA
Component Inventory Detail**

Planter Walls/Grout - Repair (part)

		Quantity	1
		Asset Cost	\$2,500.00
		Percent Replacement	100%
		Future Cost	\$2,641.96
	Landscape and Equipment		
Placed in Service	January 2011		
Useful Life	10		
Replacement Year	2021		
Remaining Life	2		



Stone retaining walls range from one to two feet in height and are used at the monument areas. Walls range are in overall fair condition with areas of grout loss and minor damage and movement noted. Funding is to repair and repoint walls as needed with no anticipation of replacing the entire wall. Drainage tubes were clogged in several areas and should be cleaned to maintain required water flow.

**Abbey Moor HOA
Component Inventory Detail**

Metal Fence - Replace

		Quantity	28 LF
		Asset Cost	\$1,890.00
		Percent Replacement	100%
		Future Cost	\$3,022.35
	Fencing		
Placed in Service	January 2011		
Useful Life	25		
Replacement Year	2036		
Remaining Life	17		



Metal fence is located at the corner neighborhood monument. Metal is in good condition with limited signs of decay or damage. Fence has a powder coated finish that once damaged will require restoring and protecting surface from moisture. Due to prohibitive costs of removing fence to re-powder coat, funding is based on maintaining fence by treating rust and painting. Recommend regular inspections to identify and treat damaged areas in order to avoid additional future costs to repair.

**Abbey Moor HOA
Component Inventory Detail**

Metal Surfaces - Paint

		Quantity	28 LF
		Asset Cost	
		Percent Replacement	100%
		Future Cost	
	Painting, Exterior		
	January 2012		
Placed in Service			
Useful Life	7		
Replacement Year	2019		
Remaining Life	0		



Metal fencing surface appears in overall fair condition with some areas of fading paint. Metal surfaces have a powder coated finish that once damaged will require restoring and protecting surface from moisture. Due to prohibitive costs of removing fence to re-powder coat, funding anticipates regular cycles of paint, utilizing a high quality exterior metal surface product. Remove rust and apply a rust inhibitor prior to painting. We anticipate that because the cost to perform this service is minimal, projects will be funded through the operating budget. No reserve funding is necessary for this component.

PART IV
GENERAL INFORMATION

Implementing your Study (A Board's Planning Tool)

Your Reserve Study results may be simple or complex. In most cases, the results require a minor adjustment to the contribution, often offset by the reclassification of work from the operating budget to the reserve budget. In some cases, however, the reserve study results can be complex, requiring the development of a *strategic plan* that may take several years to implement.

In either case, communication is the key. Most Association Members are aware of the strengths and weaknesses of their community, even if they are never publicly discussed. We have found very little resistance to even the most difficult plans if communicated properly.

Generally, the Board can successfully implement the study in these four easy steps:

Step 1: Board Meeting

The Board of Directors has the responsibility to do what is in the best interest of the Association and has significant influence; therefore, the first step is for the Board to meet. This meeting should discuss the results of the reserve study. Invite the Association Manager to attend. The purpose of this meeting should be for the Board to better understand the financial position and the upcoming reserve requirements of the Association. This includes understanding what most influences the results of the Reserve Study

Step 2: Make a Plan

The Board should then create a plan to determine how best to manage the Association's common area assets and financial position. Using this Reserve Study as a guide, the Board should make the adjustments required to meet the needs of the Association and its members. This includes setting the Reserve Contribution amount.

Step 3: Association Meeting

After the Board has determined the best course of action, present it to the Association. This allows them to ask questions and understand the direction the community will be heading. This is by far the most important step. Communicating with owners the reasons why will help significantly. Additionally, this brings confidence in the leadership of the Board and unity among the Association members.

Step 4: Update and Adjust

This Reserve Study is a one-year document. It needs to be updated and adjusted annually. Additionally, we recommend regular reviews of your plan. Assess progress and make adjustments as necessary. As already mentioned, we recommend communicating regular updates to the Association members. Whether a major project is underway or postponed for various reasons, the membership will appreciate the update. The purpose of this Reserve Study is to help your community succeed. That only works when you are proactive and consistent.

There are 4 keys to implementing your plan effectively:

- be persistent
- make incremental changes
- monitor & implement your plan continuously
- keep your eye on the ball

Consistently using these keys will help you follow your plan and achieve your goals.

Tips for Presenting the Results

Often, the Association Members will be presented with bad news in the form of significant increases or special

assessments. In our experience, it is best to have an impartial party, such as your Reserve Provider present the results. This allows the facts to be presented without having to deal with blame or accusations of delivering an "agenda". If you wish to proceed on your own, this outline has been successful:

- Be positive! A positive, energetic presentation will help to reduce stress
- Clearly explain the reserve process
- Highlight the concepts of "fairness" and "paying for what is being used" rather than referring to component replacements as future purchases
- Highlight the concept of ongoing deterioration. There's nothing anyone can do stop it!
- Explain how you got to your position without pointing fingers
- Assure the Members that you are on the right path
- Remember, there's only 3 ways to pay for reserve projects: increase in dues; special assessments or a loss in value due to deferred maintenance. One of the three must be met.

General Information and Answers to Frequently Asked Questions

Why is it important to perform a Reserve Study?

As previously mentioned, the reserve allocation makes up a significant portion of the total monthly dues. This report provides the essential information that is needed to guide the Board of Directors in establishing the budget in order to run the daily operations of your association. It is suggested that a third party professionally prepare the Reserve Study since there is no vested interest in the property. Also, a professional knows what to look for and how to properly develop an accurate and reliable component list.

After we have a Reserve Study completed, what do we do with it?

Step 1: Board Meeting

The Board of Directors has the responsibility to do what is in the best interest of the Association and has significant influence; therefore, the first step is for the Board to meet. This meeting should discuss the results of the reserve study. Invite the Association Manager to attend. The purpose of this meeting should be for the Board to better understand the financial position and the upcoming reserve requirements of the Association. This includes understanding what most influences the results of the Reserve Study

Step 2: Make a Plan

The Board should then create a plan to determine how best to manage the Association's common area assets and financial position. Using this Reserve Study as a guide, the Board should make the adjustments required to meet the needs of the Association and its members. This includes setting the Reserve Contribution amount.

Step 3: Association Meeting

After the Board has determined the best course of action, present it to the Association. This allows them to ask questions and understand the direction the community will be heading. This is by far the most important step. Communicating with owners the reasons why will help significantly. Additionally, this brings confidence in the leadership of the Board and unity among the Association members.

Step 4: Update and Adjust

This Reserve Study is a one-year document. It needs to be updated and adjusted annually. Additionally, we recommend regular reviews of your plan. Assess progress and make adjustments as necessary. As already mentioned, we recommend communicating regular updates to the Association members. Whether a major project is underway or postponed for various reasons, the membership will appreciate the update. The purpose of this Reserve Study is to help your community succeed. That only works when you are proactive and consistent.

There are 4 keys to implementing your plan effectively:

- be persistent
- make incremental changes
- monitor & implement your plan continuously

- keep your eye on the ball

Consistently using these keys will help you follow your plan and achieve your goals.

How often do we update or review the Reserve Study?

Unfortunately, there is a misconception that these reports are good for an extended period of time since the report has projections for the next 30 years. Just like any major line item in the budget, the Reserve Study should be reviewed each year before the budget is established. Invariably, some assumptions have to be made during the compilation of this analysis. Anticipated events may not materialize and unpredictable circumstances could occur. Deterioration rates and repair/replacement costs may vary from causes that are unforeseen. Earned interest rates may vary from year to year.

These variations could alter the content of the Reserve Study. Therefore, this analysis should be reviewed annually, and a property inspection should be conducted at least once every three years.

Is it the law to have a Reserve Study conducted?

The Government requires reserve analyses in approximately 20 States. Even if it is not currently governed by your State, the chances are very good that the documents of the association require the association to have a reserve fund established. This doesn't mean a Reserve Study is required, but how are you going to know you have enough funds in the account if you don't have the proper information? Some associations look at the reserve fund and think that \$50,000 is a lot of money and they are in good shape. What they don't know is that the roof is going to need to be replaced within 5 years, and the cost of the roof is going to exceed \$75,000. So while \$50,000 sounds like a lot of money, in reality it won't even cover the cost of a roof, let alone all the other amenities the association is responsible to maintain.

What is a “Reserve Component” versus an “Operating Component”?

A “Reserve” component is an item that is the responsibility of the association to maintain, has a limited useful life, predictable remaining useful life, typically occurs on a cyclical basis that exceeds 1 year, and costs above a minimum threshold amount. An “Operating” expense is typically a fixed expense that occurs on an annual basis. For instance, minor repairs to a roof for damage caused by high winds or other weather elements would be considered an “Operating” expense. However, if the entire roof needs to be replaced because it has reached the end of its life expectancy, then the replacement would be considered a reserve expense.

What are the gray areas of “maintenance” items that are often seen in a Reserve Study?

One of the most popular questions revolves around major “maintenance” items, such as painting the buildings or seal coating the asphalt. You may hear from your accountant that since painting or seal coating is not replacing a “capital” item, then it cannot be considered a Reserve issue. However, it is the opinion of several major Reserve Study providers that these items are considered to be major expenses that occur on a cyclical basis. Therefore, it makes it very difficult to ignore a major expense that meets the criteria to be considered a reserve component. Once explained in this context, many accountants tend to agree and will include any expenses, such as these examples, as a reserve component.

What happens during the Property Inspection?

The Property Inspection was conducted following a review of the documents that were established by the developer identifying all common area assets. In some cases, the Board of Directors at some point may have revised the documents. In either case, the most current set of documents was reviewed prior to inspecting the property. In addition, common area assets may have been reported to Community Association Reserves by the client, or by other parties.

Estimated life expectancies and life cycles are based upon conditions that were readily accessible and visible at the time of the inspection. We did not destroy any landscape work, building walls, or perform any methods of intrusive investigation during the inspection. In these cases, information may have been obtained by contacting the contractor or vendor that has worked on the property.

What is the Financial Analysis?

We projected the starting balance by taking the most recent balance statement, adding expected reserve contributions for the rest of the fiscal year, and subtracting any pending projects that will be paid for before the end of the current fiscal year. We compared this number to the ideal reserve balance and arrived at the percent funded level.

Measures of strength are as follows:

0% - 30% Funded is considered to be a “weak” financial position. Associations that fall into this category are subject to special assessments and deferred maintenance, which could lead to lower property values. If the association is in this position, actions should be taken to improve the financial strength of the reserve fund.

31% - 69% Funded is considered a “fair” financial position. The majority of associations fall into this category. While this doesn’t represent financial strength and stability, the likelihood of special assessments and deferred maintenance is diminished. Effort should be taken to continue strengthening the financial position of the reserve fund.

70% - 99% Funded is considered a “strong” financial position. This indicates financial strength of a reserve fund and every attempt to maintain this level should be a goal of the association.

100% Funded is considered an “ideal” financial position. This means that the association has the exact amount of funds in the reserve account.

Definition of Terms Used

A reserve study contains a number of industry-related terms and phrases. To help you better understand the reserve study process and reports, we've provided definitions for the most commonly used terms.

Cash Flow Method - A method of developing 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 anticipated schedule of reserve expenses until the desired funding goal is achieved.

Component - The individual line items in the reserve study developed or updated in the physical analysis. These elements form the building blocks for the reserve study. Components typically are: 1) association responsibility, 2) with limited useful life expectancies, 3) predictable remaining useful life expectancies, 4) above a minimum threshold cost, 5) as required by local codes.

Component Assessment and Valuation - The task of estimating useful life, remaining useful life, and repair or replacement costs for the reserve components. This task is accomplished either with or without on-site visual observations, based on the level of service selected by the client.

Component Inventory - The task of selecting and quantifying reserve components. This task can be accomplished through on-site visual observations, review of association design and organizational documents, review of established association precedents and discussion with appropriate association representative(s) of the association or cooperative.

Component Method - A method of developing a reserve funding plan where the total contribution is based on the sum of contributions for individual components. See "cash flow method".

Condition Assessment - The task of evaluating the current condition of the component based on observed or reported characteristics.

Current Replacement Cost - See "replacement cost".

Deficit - An actual (or projected) reserve balance less than the fully funded balance. The opposite would be a surplus.

Effective Age - The difference between useful life and remaining useful life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computations.

Field Inspection - A site visit which includes a visual inspection of all components. In cases where plans of the property are unavailable, it would also include the quantity survey.

Financial Analysis - The portion of a reserve study where the current status of the reserves (measured as cash or percent funded) and a recommended reserve contribution rate (reserve funding plan) are derived and the projected reserve income and expense over time is presented. The financial analysis is one of the two parts of a reserve study.

Fully Funded - 100% funded. When the actual (or projected) reserve balance is equal to the fully funded balance.

Fully Funded Balance (FFB) - Total accrued depreciation. An indicator against which actual (or projected) reserve balance can be compared. The reserve balance that is in direct proportion to the fraction of life "used up" of the current repair or replacement cost. This number is calculated for each component and summed

together for an association total. Two formulae can be utilized, depending on the provider's sensitivity to interest and inflation effects. Note: both yield identical results when interest and inflation are equivalent.

$FFB = \text{Current Cost} \times \text{Effective Age/Useful Life}$, or

$FFB = (\text{Current Cost} \times \text{Effective Age/Useful Life}) + [(\text{Current Cost} \times \text{Effective Age/Useful Life}) / (1 + \text{Interest Rate}) ^ \text{Remaining Life}] - [(\text{Current Cost} \times \text{Effective Age/Useful Life}) / (1 + \text{Inflation Rate}) ^ \text{Remaining Life}]$

Fund Status - The status of the reserve fund as compared to an established benchmark such as percent funding.

Funding Goals - Independent of methodology utilized, the following represent the basic categories of funding plan goals:

Baseline Funding - Establishing a reserve funding goal of keeping the reserve cash balance above zero.

Full Funding - Setting a reserve funding goal of attaining and maintaining reserves at or near 100% funded.

Statutory Funding - Establishing a reserve funding goal of setting aside the specific minimum amount of reserves required by local statutes.

Threshold Funding - Establishing a reserve funding goal of keeping the reserve balance above a specified dollar or percent funded amount. Depending on the threshold, this may be more or less conservative than "fully funding."

Funding Plan - An association's plan to provide income to a reserve fund to offset anticipated expenditures from that fund.

Funding Principles:

- Sufficient Funds When Required
- Stable Contribution Rate over the Years
- Evenly Distributed Contributions over the Years
- Fiscally Responsible

Life and Valuation Estimates - The task of estimating useful life, remaining useful life, and repair or replacement costs for the reserve components.

Percent Funded - The ratio, at a particular point of time (typically the beginning of the fiscal year), of the actual (or projected) reserve balance to the fully funded balance, expressed as a percentage.

Physical Analysis - The portion of the reserve study where the component inventory, condition assessment, and life and valuation estimate tasks are performed. This represents one of the two parts of the reserve study.

Remaining Useful Life (RUL) - Also referred to as "remaining life" (RL). The estimated time, in years, that a reserve component can be expected to continue to serve its intended function. Projects anticipated to occur in the initial year have "zero" remaining useful life.

Replacement Cost - The cost of replacing, repairing, or restoring a reserve component to its original functional condition. The current replacement cost would be the cost to replace, repair, or restore the component during that particular year.

Reserve Balance - Actual or projected funds as of a particular point in time that the association has identified

for use to defray the future repair or replacement of those major components which the association is obligated to maintain. Also known as reserves, reserve accounts, cash reserves. Based upon information provided and not audited.

Reserve Study Provider - An individual that prepares reserve studies.

Reserve Study - A budget planning tool which identifies the current status of the reserve fund and a stable and equitable funding plan to offset the anticipated future major common area expenditures. The reserve study consists of two parts: the physical analysis and the financial analysis.

Responsible Charge - A reserve specialist in responsible charge of a reserve study shall render regular and effective supervision to those individuals performing services which directly and materially affect the quality and competence rendered by the reserve specialist. A reserve specialist shall maintain such records as are reasonably necessary to establish that the reserve specialist exercised regular and effective supervision of a reserve study of which he was in responsible charge. A reserve specialist engaged in any of the following acts or practices shall be deemed not to have rendered the regular and effective supervision required herein:

1. The regular and continuous absence from principal office premises from which professional services are rendered; except for performance of field work or the presence in a field office maintained exclusively for a specific project;
2. The failure to personally inspect or review the work of subordinates where necessary and appropriate;
3. The rendering of a limited, cursory or perfunctory review of plans or projects in lieu of an appropriate detailed review;
4. The failure to personally be available on a reasonable basis or with adequate advance notice for consultation and inspection where circumstances require personal availability.

Special Assessment - An assessment levied on the members of an association in addition to regular assessments. Special assessments are often regulated by governing documents or local statutes.

Surplus - An actual (or projected) reserve balance greater than the fully funded balance. See "deficit. "

Useful Life (UL) - Total useful life or depreciable life. The estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed in its present application or installation.

Disclosures and Limitations

Community Association Reserves has relied upon certain information provided by Association representatives in the performance of this reserve study. Such information includes, but is not necessarily limited to, financial data, identification or quantification of common area components, and historical maintenance information. Such information is deemed reliable by Community Association Reserves. 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, specialists and independent contractors, the Community Associations Institute, 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 and the McGraw Hill Book Company. Additionally, costs are obtained from numerous vendor catalogues, actual quotations or historical costs, and our own experience in the field of the preparation of reserve analysis studies.

The reserve study is a reflection of information provided to Community Association Reserves and this report has been assembled for use by the Association. This report has not been audited, nor subjected to a forensic or quality analysis, or background checks of historical records.

The reserve balance projected in this report is based upon information provided by the Association to Community Association Reserves and was not audited.

Information provided to Community Association Reserves by the Association about reserve projects is considered reliable. The on-site visit cannot be considered a project audit or a quality visit. No forensic or destructive testing was completed.

Neither Community Association Reserves, nor its owners individually have other relationships with the Association that would represent a conflict of interest.

Your Community Association Reserves, Reserve Specialist is Richard Hamilton, RS, PRA. Mr. Hamilton has been preparing reserve studies and capital budgets since 1986 and has performed hundreds of reserve studies. His reserve study experience encompasses all types of reserve studies, including condominium, townhome, master home owner, business park, resort, hotel and timeshare associations.

Mr. Hamilton holds the Reserve Specialist (RS) designation issued by the CAI, the National Community Association Institute, and is a member of the CAI. Mr. Hamilton also holds the designation of Professional Reserve Analyst (PRA) issued by the Association of Professional Reserve Analysts (APRA).

Mr. Hamilton has worked as a Controller for a large real estate investment and management firm and possesses the skills directly applicable to preparation of a financial forecast for future major repairs and replacements. The skill-set involved in the above described experience and designations represent the skills most directly applicable to evaluation of existing facilities for purposes of a reserve study.

The site visit includes observations of all visible common area components, unless otherwise indicated on the detail component listing. No destructive testing was performed.

We are not aware of any material issues which, if not disclosed, would cause a significant distortion of the

Association's reserve status or funding plan.

It has been assumed, unless otherwise noted in this report, that all assets have been designed and constructed properly and each estimated useful life will approximate that of the norm per industry standards and/or manufacture specifications used. In some cases, estimates may have been used on assets which have an indeterminable, but potential liability to the association.

PART V
MEMBER'S SUMMARY

Members Summary

Abbey Moor HOA
2019 - 2048

Number of Components Identified:	8
Fully Funded Balance Begin Fiscal Year:	\$57,747.66
Reserve Fund Balance Begin Fiscal Year:	\$25,334.00
Percent Fully Funded:	44%

Current Contribution Annually:	\$3,000.00
Current Contribution Per Unit:	\$16.30

Full (100%) Funding Contribution Annually

Recommended Contribution #1:	\$11,050.00
Contribution Per Unit #1:	\$60.05

Threshold (70%) Funding Contribution Annually

Recommended Contribution #2:	\$10,475.00
Contribution Per Unit #2:	\$56.93

Special Assessments (Annual)

Levied Year #1:	None
Levied Year #2:	None
Levied Year #3:	None
Levied Year #4:	None
Levied Year #5:	None

Projected Expenditures, Year #1:	\$0.00
Projected Expenditures, Year #2:	\$0.00
Projected Expenditures, Year #3:	\$2,641.96
Projected Expenditures, Year #4:	\$0.00
Projected Expenditures, Year #5:	\$0.00

**Abbey Moor HOA
Member's Inventory Summary**

Description	Replacement Year	Current Cost	Useful Life	Adjustment	Remaining	Future Cost	Quantity	Unit Cost
Metal Surfaces - Paint	2019		7	0	0		28 @	
Planter Walls/Grout - Repair (part)	2021	2,500	10	0	2	2,642	1 @	2,500.00
Brick Panel Fence - Repair/Replace (..	2025	82,500	10	4	6	97,367	2750 @	120.00
Irrigation System - Replace (partial)	2026	5,000	15	0	7	6,066	1 @	5,000.00
Monuments - Refurbish	2031	12,500	20	0	12	17,411	5 @	2,500.00
Trees/Vegetation - Replace (partial)	2033	5,000	15	0	14	7,360	1 @	5,000.00
Metal Fence - Replace	2036	1,890	25	0	17	3,022	28 @	67.50