
RESERVE STUDY

(UPDATE, WITH-SITE-VISIT/ON-SITE REVIEW)

Arbor Hills Condominium Association
Ann Arbor, Michigan

Commencing First Fiscal Year: January 1, 2021 to December 31, 2021



Photo: View of entry area



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November 16, 2020

Board of Directors
Arbor Hills Condominium Association
850 North Crooks Road, Suite 100
Clawson, MI 48017

Re: "Update, With Site-Visit/On-Site Review" Reserve Study
Arbor Hills Condominium Association
Ann Arbor, Michigan

Dear Board of Directors:

In fulfillment of our agreement as outlined in the letter of engagement dated January 28, 2020, we are pleased to transmit this "Update, With Site-Visit/On-Site Review" Reserve Study for the Arbor Hills Condominium Association. This report details the development of our study and sets forth our conclusions, along with supporting data and reasoning which forms the basis of our conclusions.

The conclusions in this Reserve Study are qualified by certain definitions, assumptions, limiting conditions, and certifications which are set forth in the attached report.

The intended user of this report is the Arbor Hills Condominium Association. This study is to be used by the intended user for the purpose of budgeting and long-term major repair and replacement planning. The scope of work included in this study is unique to the intended use and intended user, and this report may not be utilized for any other use or user.

This study complies with the standards promulgated by the Community Associations Institute (CAI) for a "Update, With Site-Visit/On-Site Review" Reserve Study. In addition, this study adheres to the applicable sections of the *Uniform Standards of Professional Appraisal Practice* of the Appraisal Foundation, as well as the *Code of Professional Ethics* of the Appraisal Institute.

This letter must remain attached to the report in order for the opinion set forth to be considered valid.

Respectfully submitted,

A handwritten signature in black ink that reads "Paul Conahan". The signature is written in a cursive, flowing style.

Paul K.T. Conahan, MBA, RS
State Certified General Real Estate Appraiser
License No. 1201002454

TABLE OF CONTENTS

SUMMARY AND RECOMMENDED FUNDING PLAN.....	2
Introduction.....	2
Recommended Funding Plan.....	3
INTRODUCTION AND METHODOLOGY	8
Introduction.....	8
Methodology.....	11
PHYSICAL ANALYSIS	16
Identification of Reserve Components	16
Aerial and Location Map.....	16
Condition Assessment	19
Site Components.....	19
FINANCIAL ANALYSIS	22
Financial Assumptions.....	22
Estimation of Inflation Rate	23
Summary and Conclusion of Selected Rates.....	24
Recommended Funding Plan.....	24
ADDENDA.....	A
Photographs	B
Reserve Expenditures and Reserve Funding Plan	H
Historic and Recommended Reserve Funding Plan	I
Reserve Funding Plan Graphs	J
Certifications, Assumptions and Limiting Conditions	M
Qualifications – Paul K.T. Conahan, MBA, RS	R

SUMMARY AND RECOMMENDED FUNDING PLAN

INTRODUCTION

A Reserve Study is a tool which anticipates major common area repair and replacement expenses and develops a prudent Reserve Funding Plan to pay for these expenses. By its nature, a Reserve Study must make assumptions about the future, which can sometimes be unpredictable. However, by using meticulous research and analysis together with proven methodologies, a well-executed Reserve Study provides condominium associations with valuable budget planning information and guidance on upcoming long-term maintenance and repairs.

In addition, a Reserve Study is a key marketing component for well-run condominium associations, since potential buyers can be assured that common elements will be cared for, and that association fees will not increase dramatically due to a lack of foresight and planning.

Arbor Hills Condominium Association (Arbor Hills) directed Michigan Reserve Associates to do a “Update, With Site-Visit/On-Site Review” Reserve Study. On March 16, 2020 we performed an on-site noninvasive inspection.

A Reserve Study consists of two major components.

Physical Analysis	Financial Analysis
<ul style="list-style-type: none">• Component Survey and Inventory• Assessment of Component Condition• Estimate of Useful Life, Effective Age, Remaining Useful Life, and Replacement Cost	<ul style="list-style-type: none">• Current Reserve Fund Status• Recommended Funding Plan

Arbor Hills consists of 200 units. The project was built in several phases spanning 1995 to 1999.

The Reserve Components were established based on our review of the governing documents (e.g., master deed and bylaws for condominiums, declaration of covenants and restrictions

and/or bylaws for homeowners associations, or occupancy agreement in a cooperative association), and interviews with representatives of Casa Bella Property Management. The following table provides an inventory of the reserve components:

Inventory of Reserve Components

<u>Reserve Component Inventory</u>	<u>Quantities Total</u>	<u>First Year of Replacement</u>	<u>Life Analysis (Yrs.)</u>	
			<u>Normal</u>	<u>Remaining</u>
<u>Site Components</u>				
Concrete Curbing; Phased Partial Replacement	17,466 LF	2025	30-50	5
Asphalt; Mill and 1½" Overlay; Phased	233,364 SF	2025	18	5
Asphalt; Sealcoat	233,364 SF	2021	4	1
Catch Basins; Capital Repairs (Synchronized to Mill and 1½ Replace.)	65 UNITS	2025	18	5
Pond Dredging	1 LOT	2025	10	5
Ponds; Inspect and Clean	1 LOT	2025	10	5
Pole Lights; Replacement	40 UNITS	2030	25	10
Mailboxes; Replacement	200 UNITS	2021	25	1
Vinyl Fence Along Green Road; Replacement	808 LF	2030	35	10
Entry Signage; Replacement	1 LOT	2021	25	1
<u>Other Components</u>				
Reserve Study; Update (Guaranteed Update Price Years 1-5)	1 UNIT	2024	5	4

RECOMMENDED FUNDING PLAN

The purpose of this reserve study is to assist the client in developing the budget for the next fiscal year. Since the next fiscal year for Arbor Hills commences January 1, 2021, the reserve fund balance as of January 1, 2021 must be calculated to account for revenues and expenses between the present date and the start of the new fiscal year.

According to information provided by Casa Bella Property Management, the Arbor Hills reserve fund balance as of January 1, 2021 will be \$656,007. This balance was calculated by taking the reserve balance of \$593,280 as of February 18, 2020, adding \$57,500 in anticipated reserve revenue until the end of the fiscal year, then adding \$5,227 in earned interest until the end of the fiscal year, and deducting \$0 in anticipated reserve expenditures until the end of the fiscal year. This calculation is shown below.

Projected Reserve Fund Balance as of 01/01/2021

Reserve Fund Balance as of 02/18/2020		\$ 593,280
Plus Remaining Reserve Contribution until End of Current Fiscal Year		57,500
Plus Estimated Interest From Reserve Funds Until End of Current Fiscal Year		5,227
Minus Remaining Reserve Expenditures Until End of Current Fiscal Year		
None Reported	\$	<u> -</u>
Total Expenditures To Deduct		<u> -</u>
Equals Projected Reserve Fund Balance as of 01/01/2021		\$ 656,007

Using the current Reserve Contribution amount plus a typical 3% annual increase, the projected Reserve Balance will remain significantly above surplus levels for the entire projection period. The reserve fund balance will be \$1,295,009 by the year 2045. This indicates that the current Reserve Balance and annual Reserve Contributions will fund all anticipated Reserve Expenditures (see “Reserve Funding Plan Graphs” beginning on page J).

This Reserve Study calculates Reserve Expenditures based on local costs, estimated interest which will accrue to the Reserve Funds collected, and accounting for projected future inflation for materials and workmanship.

The following is our recommend Reserve Funding Plan Contributions for the duration of the projection period, along with a snapshot of the current and Recommended Reserve Contribution.

Recommended Annual Reserve Contributions

Year	Recommended Reserve Contrib.	Additional Reserve Contribution	Year	Recommended Reserve Contrib.	Additional Reserve Contribution
2021	\$ 60,100	\$ -	2034	\$ 68,300	\$ -
2022	60,700	-	2035	69,000	-
2023	61,300	-	2036	69,700	-
2024	61,900	-	2037	70,400	-
2025	62,500	-	2038	71,100	-
2026	63,100	-	2039	71,800	-
2027	63,700	-	2040	72,500	-
2028	64,300	-	2041	73,200	-
2029	64,900	-	2042	73,900	-
2030	65,500	-	2043	74,600	-
2031	66,200	-	2044	75,300	-
2032	66,900	-	2045	76,100	-
2033	67,600	-			

Snapshot of Current and Recommended Reserve Contribution

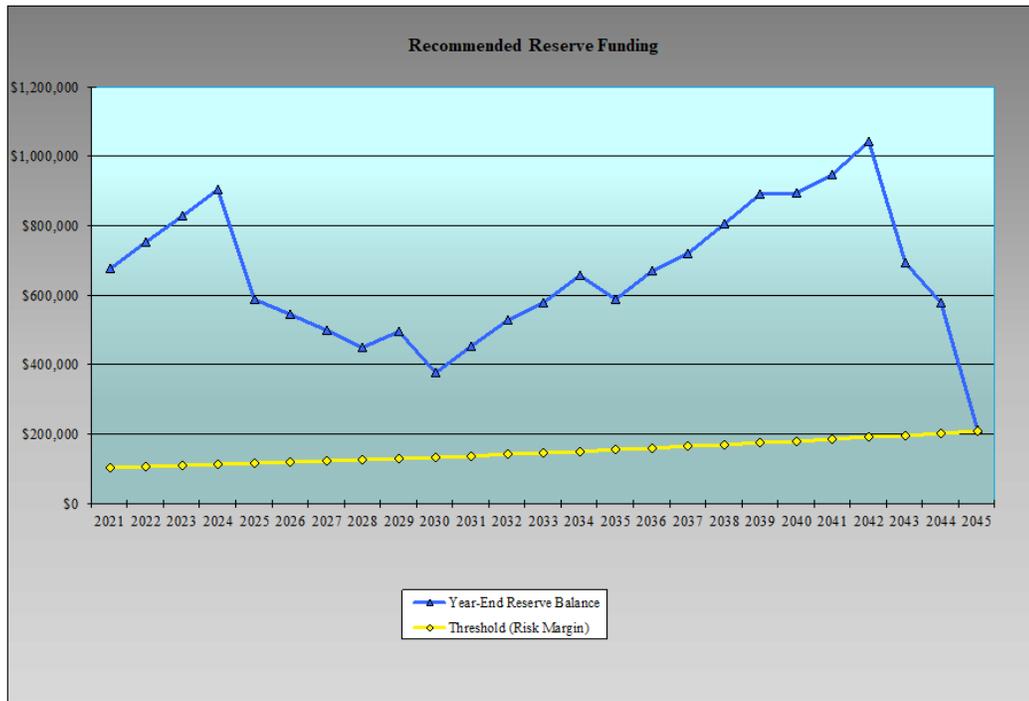
	Annual Amount	Per Unit Per Month (Average)
Projected Reserve Contribution at Start of Next Fiscal Year	\$ 71,070	\$ 29.61
Recommended Reserve Contribution at Start of Next Fiscal Year	\$ 60,100	\$ 25.04
Amount of Increase/(Decrease) Current vs. Recommended	\$ (10,970)	\$ (4.57)
Additional Reserve Contribution (Years 1-10)	\$ 0	\$ 0.00

The recommended year 2021 Reserve Contribution of \$60,100 (\$25.04 per unit per month) reflects a decrease of \$10,970, relative to the projected historic Reserve Contribution, or a decrease of \$4.57 per unit per month. Starting with the 2021 Recommended Reserve Contribution of \$60,100 per annum, and then increasing the Recommended Reserve Contribution by 1.0% per year, the Association’s Reserves will typically remain above zero as well as above the Threshold for all years shown (“Threshold” is discussed in the next paragraph).

By following the recommended Reserve Contributions, the Association will gradually accrue a Reserve Fund which will provide the financial means to address the major Reserve Component Expenditures which will arise in the future. The recommended Reserve Contribution amount will provide adequate, but not excessive, levels of Reserves, while still

maintaining a reasonable Threshold Margin which suits the particular needs of the Association and will provide a “safety buffer” for unanticipated Reserve Expenditures which are unpredictable but inevitable.

The following graph illustrates the year-end Reserve Fund balance using the Recommended Reserve Funding Plan for the next 25 years.



In order to ensure that significant overfunding or underfunding does not occur, we recommend that the Arbor Hills Condominium Association update this Reserve Study every three to five years, or when any major changes in the Physical or Financial analysis occur. Such changes include accelerated Reserve Component Expenditures undertaken at the client’s discretion, addition (construction) or demolition of Reserve Components, interest rate changes on reserve investments, and changes in local building costs.

Respectfully submitted,

A handwritten signature in black ink that reads "Paul Conahan". The signature is written in a cursive style with a long, sweeping underline.

Paul Conahan, MBA, RS
Michigan Reserve Associates LLC

INTRODUCTION AND METHODOLOGY

INTRODUCTION

A Reserve Study is a tool which anticipates major common area repair and replacement expenses and develops a prudent Reserve Funding Plan to pay for these expenses. By its nature, a Reserve Study must make assumptions about the future, which can sometimes be unpredictable. However, by using meticulous research and analysis together with proven methodologies, a well-executed Reserve Study provides condominium associations with valuable budget planning information, and guidance on upcoming long-term maintenance and repairs.

In addition, a Reserve Study is a key marketing component for well-run condominium associations, since potential buyers can be assured that common elements will be cared for, and that association fees will not increase dramatically due to a lack of foresight and planning.

There are three levels of service for Reserve Studies as espoused by the Community Associations Institute.¹

I) **Full:** A Full Reserve Study consists of the following:

- Component Inventory
- Condition Assessment (based upon on-site visual observation)
- Life and Valuation Estimates
- Reserve Fund Status
- Recommended Reserve Funding Plan

II) **Update, With-Site-Visit/On-Site Review,** consists of:

- Component Inventory (verification only, not quantification)
- Condition Assessment (based upon on-site visual observation)
- Life and Valuation Estimates

¹ "RS National Reserve Study Standards," Community Associations Institute, April 2009, p. 2.

- Reserve Fund Status
- Recommended Reserve Funding Plan

III) Update, No-Site-Visit/Off-Site Review, consists of:

- Life and Valuation Estimates
- Reserve Fund Status
- Recommended Reserve Funding Plan

This is a “Update, With Site-Visit/On-Site Review” Reserve Study. For simplicity, the terms “Update, With Site-Visit/On-Site Review” Reserve Study and “Reserve Study” will be used interchangeably following this section.

Typically, the Level I (Full Reserve Study) option is only required for an association’s first Reserve Study. This is our most comprehensive offering and should be used by associations which are ordering their first reserve study, or whose previous reserve study is so dated and/or inaccurate as to require a “blank slate” approach to re-survey the various common element components and their conditions. As part of our scope of work, we will thoroughly review your governing documents, maintenance schedule, and interview Board members and/or property management representatives to determine what items should be included in the list of reserve components. We will then estimate Useful Life, Remaining Useful Life, and Replacement Cost, all documented and supported with color photographs. From this Physical Analysis we will then perform a Financial Analysis which will account for your current reserve funding situation and recommend an ongoing Reserve Funding Plan.

Level II (Update, With-Site-Visit/On-Site Review) reserve studies are recommended if the association is confident that the Reserve Components have been accurately surveyed, and no major changes have occurred since the last Full Reserve Study. The scope of work includes an on-site inspection to update Useful Life, Remaining Useful Life, Cost Figures, and Financial Assumptions, but component quantities will not be re-surveyed.

When doing an “Update With Site Visit” assignment, the Reserve Component inventory is not quantified. The quantification of reserve components as determined by the previous reserve study will be assumed to be accurate.

Level III (Update, No-Site-Visit/Off-Site Review) reserve studies are useful when the association is confident that the Reserve Components have been accurately identified and surveyed, but due to the minimal number of Reserve Components, and short-time period elapsed since the last Reserve Study, the association does not feel an on-site inspection would be required. In order to provide a credible reserve study, we only provide this type of reserve study for existing clients, and our previous reserve study (with site visit) is less than five years old. Narrative content of this type of Reserve Study is extremely limited, with most communication occurring via an Executive Summary, charts and graphs (Reserve Expenditures and Reserve Funding Plan).

When doing an “Update Without Site Visit” assignment, the Reserve Component conditions are not visually confirmed and updated, and the Remaining Useful Lives of the Reserve Components will typically be calculated based on the assumption that the actual time elapsed since the previous reserve study is added to the effective age as determined in the previous reserve study. The quantification of Reserve Components as determined by the previous reserve study will be assumed to be accurate.

Arbor Hills Condominium Association (Arbor Hills) directed Michigan Reserve Associates to do a “Update, With Site-Visit/On-Site Review” Reserve Study. On March 16, 2020 we performed an on-site noninvasive inspection.

METHODOLOGY

The Physical Analysis precedes the Financial Analysis since we must first determine the projected expenses before evaluating the Association's financial status to develop a Recommended Reserve Funding Plan.

The Physical Analysis therefore starts with an inventory of Reserve Components. To establish what items to include in our inventory, we reviewed the Association's governing documents, recent Reserve expenditures, and conducted interviews with the Association's representatives to determine if there are historical precedents which warrant inclusion in the Reserve Component Inventory.

What Physical Assets Should be Included in an Inventory of Reserve Components?

Reserves are large items that require advance planning to repair or replace. Operating expenses are ongoing, predictable expenses that repeat throughout the year or from year-to-year, with modest unanticipated items typically covered by a maintenance contingency in the budget, whereas larger items may be covered by additional assessments or insurance.

There is a national standard five-part test to establish whether an item should be funded through reserves. First, the item must be a common element maintenance responsibility. Second, the component must have a limited life. Third, the limited life must be predictable. Fourth, the item must be above a threshold cost. Fifth, the item is required by local codes. A sixth criteria is not part of the national standard but is inherent in the methodology used in this Reserve Study. Only Reserve Components which fall within the 25-year time horizon are included in our analysis. Therefore, Reserve Components presented in this Reserve Study are association responsibilities, major items, with limited and predictable lives which fall within the 25-year projection period. Items such as foundations and major infrastructure components are not included in reserves since they do not have limited useful life expectancies which can be predicted. Small items, such as metal street signs are not considered Reserve Components due to their nominal costs (i.e., they do not pass Test # 4 above).²

² *Ibid.*, p. 2.

As it relates to the Association, we suggested that items costing more than \$3,000 and that have a minimum predictable Useful Life of at least three years be considered Reserve Components. The reason for this is that there should be a firewall between the reserve and operating accounts so that reserve funds do not get treated as an extension of operating funds. Reserve expenses are typically defined as being used major repairs and replacements.. We are not lawyers, but we do recommend that the Association adopt a clear definition of what constitutes a Reserve Component which will be funded via Reserve Funds. We recommend that the Association consult with an experienced community association attorney to develop such a definition of Reserve Components.

How are Useful Life and Remaining Useful Life Established?

Useful Life is estimated based on our experience with the Reserve Component, after accounting for quality, expected maintenance, and weather exposure. Remaining Useful Life is primarily a function of the current noninvasive observed condition. The complement of Remaining Useful Life is Effective Age. Typically, Effective Age does not equal Actual Age due to differences in quality, rate of wear, and degree of maintenance attention a particular item receives. For Reserve Components where age characteristics are not readily visible (e.g., complex heating/cooling systems, elevators, security systems, etc.), we rely on interviews with the Association's service vendor. If the vendor is no longer available, we use national benchmarks, primarily from the *Marshall & Swift* cost estimating service.

How are Cost Estimates Established?

Whenever possible, we use recent historical information for Reserve Components which have been replaced or repaired, since this gives an actual localized data point from which to estimate future costs. Additional sources of information are comparisons with other condominium and homeowners associations for which we have performed work, as well as interviews with local vendors. Costs are also compared with those published by *Marshall & Swift* to provide a feedback mechanism to verify local vendor costs against national and regional cost data.

How Much Reserves Should We Contribute?

We utilize four principles when developing a Recommended Reserve Funding Plan. First, there must be sufficient cash on hand to handle the Reserve projects which arise. Second, we seek to provide a stable rate of contribution since this makes it easier for the Association and Association residents to plan their budgets year-to-year. Third, the Reserve Funding Recommendation attempts to evenly distribute the contributions over the years so that owners pay their fair share in proportion to the time that they have owned their unit. Finally, the Recommended Reserve Funding Plan must be fiscally responsible using reasonable and prudent financial assumptions with a risk profile tailored to the client.³

What is Our Funding Goal?

There are four different funding goals which are independent of the methodology utilized. These goals are:

- 1) **Baseline Funding:** Anticipated costs and their expected timing over the projection period are calculated. The reserve contribution is then set to keep the reserve cash balance above zero.
- 2) **Full Funding:** Setting a reserve funding goal of attaining and maintaining reserves at or near 100% funded. For example, an association would set aside \$10,000 per year for a component (e.g., roof) which will cost \$100,000 to replace in 10 years. Full funding is considered the most expensive (and therefore conservative) funding formula since money for all reserve components is set aside and accounted for.
- 3) **Statutory Funding:** Establishing a reserve funding goal of setting aside the specific minimum or regulatory amount of reserves requires by local statutes.
- 4) **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 funding goal may be more or less conservative than Full Funding.

³ *Ibid.*, p. 4.

With Baseline Funding, there is no margin for error, and if expenses are higher than budgeted, or projects occur earlier than planned, additional assessments can occur, although this risk can be somewhat alleviated by regular updates to the Reserve Study.

Statutory Funding is not recommended because there is no direct correlation between the statutory minimum and the association's actual financial needs. For example, a 10% minimum for the reserve contribution might be acceptable for a newer development with relatively few common elements, and a properly developed maintenance and overall budget plan. However, the 10% minimum might be wildly off the mark for an older development with extensive common element obligations and a maintenance and overall budget that are themselves underfunded.

In our opinion, Full Funding provides an excessive level of funding since the association is typically setting aside money that it will not be using for decades. On the other hand, this funding goal has the distinction of typically being the most conservative funding formula which may be seen as a virtue by some associations.

We recommend using Threshold Funding with a safety margin set above 100% of Baseline Funding. Although the safety margin is arbitrary, it should be customized to the client's risk profile. As a rule of thumb, we suggest a safety margin of \$500 per unit as prudent for associations similar to the subject. When an association is considering what their threshold safety margin should be, a good question to ask is "What is a reasonable level of money to have on hand due to unpredictable events?" Small amounts can usually be covered by maintenance contingency funds or short-term loans, while very large unplanned events are typically covered by insurance.⁴

An added benefit of using Threshold Funding as recommended above is that it provides a layer of global risk management against the many future unknowns which must be assumed for the purposes of a reserve study. For example, reserve studies must make assumptions

⁴ *Ibid.*, p. 3.

about future rates of inflation, rates of return on reserve investments, and the Useful Lives of Reserve Components. One way of accounting for the many different risk factors inherent in reserve study assumptions would be to attempt to individually forecast the future replacement cost for each Reserve Component. For example, certain Reserve Components which depend on petroleum-based commodity materials (such as paving and roof shingles) have recently been increasing at a rate significantly greater than inflation. However, not only would it be impractical to forecast future Replacement Costs for potentially dozens of Reserve Components (some of which may actually experience deflation over time), it is more straightforward to concede that future risk can realistically only be managed at a macro, rather than micro, level.

PHYSICAL ANALYSIS

IDENTIFICATION OF RESERVE COMPONENTS

Arbor Hills consists of 200 units. Project was completed in several phases spanning 1995 to 1999. The following graphic provides an aerial view of the project.

AERIAL AND LOCATION MAP



The Physical Analysis starts with an inventory of Reserve Components. To establish what items to include in our inventory, we reviewed the Association’s governing documents, recent Reserve expenditures, and conducted interviews with the Association’s representatives. Please see the Reserve Expenditures spreadsheet in the Addenda for a listing of individual line items, estimates for Useful Life, Remaining Useful Life, and current Replacement Cost for each component.

When doing an “Update With Site Visit” assignment, the Reserve Component inventory was not quantified, although minor additions/deletions of the component inventory, along with

their quantities and install dates, were accounted for. The quantification of Reserve Components as determined by the previous reserve study was assumed to be accurate.

Changes made to the Reserve Component inventory, since the prior Reserve Study, are as follows:

- UPDATED: All Reserve Component current Replacement Costs and replacement dates were updated.
- DELETED: Asphalt; mill and 1½” overlay; sidewalk (client reports this is the responsibility of the City of Ann Arbor)
- ADDED: Catch basins; capital repairs

Based on the national five-part test described on page 11, there are certain items which have not been included in this reserve study.

Items which may pass the five-part inclusion test as a Reserve Component discussed on page 11 but were specifically excluded in this Reserve Study at the direction of the client are:

- None noted

Items which may fail the five-part inclusion test as a Reserve Component discussed on page 11 but were specifically included in this Reserve Study at the direction of the Client are:

- Site; asphalt seal coating – The primary function of the seal coat is an aesthetic one, and therefore this item is considered optional and has been included at the client’s request. Although co-owners typically find the uniform appearance of the roadways appealing, the sealcoat does not penetrate the asphalt and provides little rejuvenative effect. An annual crack filling maintenance program should still be implemented regardless of whether there is a seal coating program in place or not.

In addition, there is growing concern that coal tar sealants, which are commonly used in seal coating applications, pose a cancer risk to humans, and may also appear in runoff which can adversely impact the environment. Asphalt-based products typically cost about the same as coal tar products and contain significantly lower levels of

cancer-linked chemicals, although there is some debate on whether asphalt-based sealants perform as well as coal tar sealants.

Noteworthy items which did not meet the criteria (see page 11) for inclusion as Reserve Components are broken down by category below:

Item failed test #1 (Not an association common element maintenance/replacement responsibility)

- Units/lots; all interior and exterior improvements (including sidewalks and ramps fronting each lot); replacement (co-owner responsibility)

Item failed test #2 (No limited life)

- None noted

Item failed test #3 (No Predictable Limited Life)

- Site; electrical power distribution systems; replacement
- Site; sewer and water mains; replacement
- Site; tree and shrub replacement
- Site; routine asphalt crack filling and repair

Item failed test #4 (Cost is Below the Assumed Threshold Amount of \$3,000)

- Items in this category which are assumed to be funded (either on an “as needed” or scheduled basis) by the Association’s operating budget are:
- Concrete sidewalks for common areas – The 3,240 square feet of concrete sidewalks and four ramps that are the association responsibility (primarily surrounding the playground and main entry and along Ashburnam Road) have an estimated Useful Life of 35-50 years, with partial replacements costing less than the \$3,000 minimum funded via reserves.
- Site; routine pond maintenance

Noteworthy items which passed Tests 1-4 on page 11, and are thus considered Reserve Components, but were not explicitly accounted for in this Reserve Study because the Remaining Useful Life is beyond the 25-year time horizon:

- Site; underground sprinkler equipment; line replacement (sprinkler head repair and replacement; sprinkler valve repair and replacement; sprinkler control box repair and replacement are assumed to be funded “as needed” from operations)

CONDITION ASSESSMENT

The following narrative details the condition assessment of the significant Reserve Components, along with relevant commentary and cost source, if applicable.

SITE COMPONENTS

Concrete Curbing: This item has a Useful Life which can range from 30 to 50 years. Observed condition is average. Since sections of concrete can be selectively replaced, and since concrete can vary significantly in wear and tear, only partial replacement of the concrete curbs was assumed, with the remainder being easily repaired or simply used for an extended period. It was assumed that approximately 5-10% of concrete curbing would require replacement after 15-20 years of original installation, and then an additional 5-10% of concrete curbing would be replaced every five years thereafter. These replacements are assumed to work together with ongoing maintenance and smaller curb replacements (i.e., those projects costing less than \$3,000), which will occur via operations.

Asphalt (Mill and Overlay): This item has a Useful Life of approximately 18 years. Replacement will consist of milling out the existing asphalt, with a minimum 1½” overlay. Current observed condition is average. Cost source for this item was obtained via review of information from Michigan-based vendors, and was cross-checked for reasonableness using the *Marshall and Swift Valuation Service*. We recommend that any weeds that are growing between or through the asphalt be immediately treated with an herbicide such as Roundup. If the Association wishes to limit the use of herbicides, application of a vinegar solution (20% acetic acid) and water has been shown to be effective for approximately two months (these

results are comparable to the use of Roundup). Failure to implement a regular weed abatement program can dramatically shorten the Useful Life of the asphalt surfacing.

Total replacement is an alternative to a mill and overlay project. For total replacement, the entire asphalt layer is removed, and the underlying base is typically repaired and recompact where needed. Total replacement is recommended when asphalt is structurally failing due to defects or a poorly installed base, which is usually indicated by a shortened useful life. However, total replacement is significantly more expensive than mill and overlay due to the greater scope of work involved.

For most associations without asphalt defects or base issues, a mill and overlay usually provides the optimum balance of cost versus benefit.

Asphalt Seal Coat: The asphalt should be sealed every four to five years, but can be suspended for 3-5 years after a new asphalt installation. As part of this maintenance item, minor cracks and divots should be filled by the contractor as part of the scope of services performed. The primary function of the seal coat is an aesthetic one. Although co-owners typically find the uniform appearance of the roadways appealing, the sealcoat does not penetrate the asphalt and provides little rejuvenative effect. Even if the seal coat is omitted, an annual crack filling maintenance program should be implemented. Cost source for this item was obtained via review of information from Michigan-based vendors, and was cross-checked for reasonableness using the *Marshall and Swift Valuation Service*.

In addition, there is growing concern that coal tar sealants, which are commonly used in seal coating applications, pose a cancer risk to humans, and may also appear in runoff which can adversely impact the environment. Asphalt-based products typically cost about the same as coal tar products and contain significantly lower levels of cancer-linked chemicals, although there is some debate on whether asphalt-based sealants perform as well as coal tar sealants.

Catch Basins (Capital Repairs): Because of their function channeling storm water runoff, catch basins typically require capital repairs to account for the steady impact of water erosion

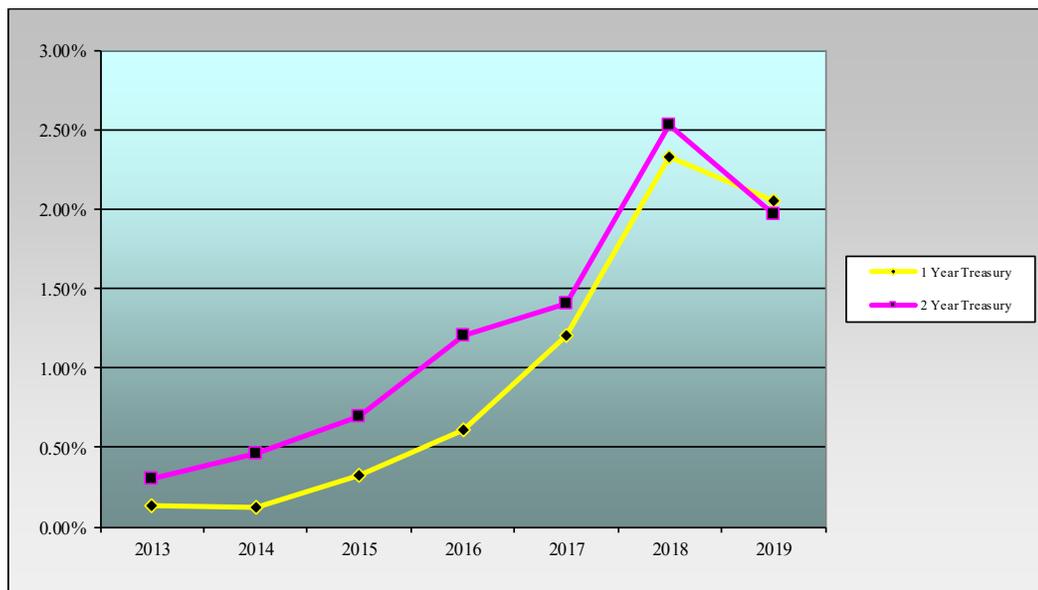
in and around the catch basin area. Capital repairs typically take the form of removing the surrounding asphalt and/or concrete, partially rebuilding portions of the below grade catch basin structure, and then installing new asphalt and/or concrete around the metal catch basin grate. A relatively recent alternative catch basin repair procedure involves application of a structural polymer which fills voids and hardens upon application and is typically guaranteed for 10 years. The structural polymer method of catch basin capital repairs typically costs 25%-50% of the cost of the traditional rebuilding method. However, the traditional method of partially rebuilding each catch basin has been assumed in this reserve study since it typically lasts twice as long as the structural polymer guarantee.

FINANCIAL ANALYSIS

FINANCIAL ASSUMPTIONS

The following chart details the historical trend for typical savings investment vehicles (one- and two-year Treasuries) as published by the U.S. Treasury Department.

Trend for Sample Investment Types



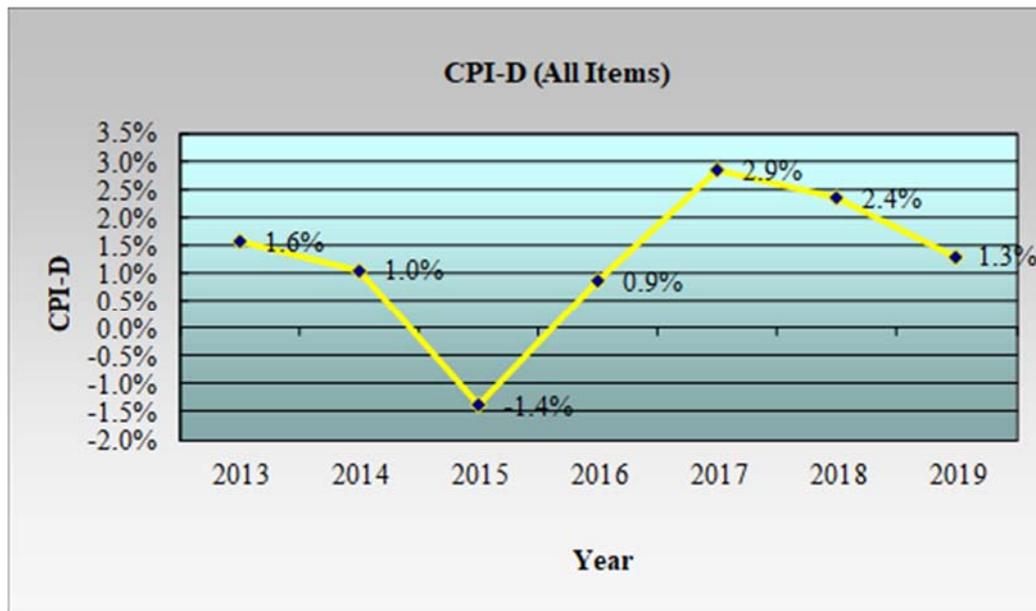
Treasuries provide a good investment benchmark since they reflect a very safe investment whose risk profile matches that of most condominium associations. By using “laddering” in which maturities are staggered over time, an Association can often gain some of the higher yield of a longer-term investment, while still having access to liquid funds as the various investments mature in series.

A broad-based analysis of rates is required since the investment yield-rate selected will be utilized for the entire 25-year projection period, and the rate selected should therefore reflect what can be expected during a 25-year time period, with nominal attention paid to current investment rates.

For the purposes of this Reserve Study, we will use a Reserve savings yield rate of 2.0%. We did not make any adjustments to account for the impact of Federal Income Tax on investment income since the Association's tax situation can change over time. We advise the client to consult with its accountant and/or professional investment advisor to develop or refine an investment strategy consistent with the Association's risk profile and Reserve investment profile.

ESTIMATION OF INFLATION RATE

The following graph illustrates the five-year historical trend for the Consumer Price Index (CPI-D; all Items) as published by the U.S. Bureau of Labor Statistics.



As discussed for Reserve savings, a broad-based analysis of rates is required since the inflation rate selected will be utilized for the entire 25-year projection period. In addition, the CPI-D measures inflation for a wide-range of goods, and therefore does not correlate directly with changes in the cost of materials and labor for repair/replacement of Reserve Components.

For the purposes of this Reserve Study, we will use a 3.0% annual inflation rate. Although inflation may be above or below a 3.0% annual inflation rate during any particular year of the

25-year projection period, we anticipate a 3.0% annual inflation rate to represent the average rate over time.

SUMMARY AND CONCLUSION OF SELECTED RATES

Having the Reserve savings yield rate less than the expected long-term inflation rate is a conservative assumption since most investments are made with the primary purpose of matching or exceeding inflation. However, associations typically follow a reserve investment policy which strongly emphasizes safety and preservation of capital. Since risk and reward are directly related, the lower risk profile utilized by associations typically results in a lower rate of return, and therefore having the reserve savings investment yield be less than the expected inflation rate was considered reasonable.

RECOMMENDED FUNDING PLAN

The purpose of this reserve study is to assist the client in developing the budget for the next fiscal year. Since the next fiscal year for Arbor Hills commences January 1, 2021, the reserve fund balance as of January 1, 2021 must be calculated to account for revenues and expenses between the present date and the start of the new fiscal year.

According to information provided by Casa Bella Property Management, the Arbor Hills reserve fund balance as of January 1, 2021 will be \$656,007. This balance was calculated by taking the reserve balance of \$593,280 as of February 18, 2020, adding \$57,500 in anticipated reserve revenue until the end of the fiscal year, then adding \$5,227 in earned interest until the end of the fiscal year, and deducting \$0 in anticipated reserve expenditures until the end of the fiscal year. This calculation is shown below.

Projected Reserve Fund Balance as of 01/01/2021

Reserve Fund Balance as of 02/18/2020		\$ 593,280
Plus Remaining Reserve Contribution until End of Current Fiscal Year		57,500
Plus Estimated Interest From Reserve Funds Until End of Current Fiscal Year		5,227
Minus Remaining Reserve Expenditures Until End of Current Fiscal Year		
None Reported	\$	-
Total Expenditures To Deduct		<u>-</u>
Equals Projected Reserve Fund Balance as of 01/01/2021		\$ 656,007

Using the current Reserve Contribution amount plus a typical 3% annual increase, the projected Reserve Balance will remain significantly above surplus levels for the entire projection period. The reserve fund balance will be \$1,295,009 by the year 2045. This indicates that the current Reserve Balance and annual Reserve Contributions will fund all anticipated Reserve Expenditures (see “Reserve Funding Plan Graphs” beginning on page J).

This Reserve Study calculates Reserve Expenditures based on local costs, estimated interest which will accrue to the Reserve Funds collected, and accounting for projected future inflation for materials and workmanship.

The following is our recommend Reserve Funding Plan Contributions for the duration of the projection period, along with a snapshot of the current and Recommended Reserve Contribution.

Recommended Annual Reserve Contributions

Year	Recommended Reserve Contrib.	Additional Reserve Contribution	Year	Recommended Reserve Contrib.	Additional Reserve Contribution
2021	\$ 60,100	\$ -	2034	\$ 68,300	\$ -
2022	60,700	-	2035	69,000	-
2023	61,300	-	2036	69,700	-
2024	61,900	-	2037	70,400	-
2025	62,500	-	2038	71,100	-
2026	63,100	-	2039	71,800	-
2027	63,700	-	2040	72,500	-
2028	64,300	-	2041	73,200	-
2029	64,900	-	2042	73,900	-
2030	65,500	-	2043	74,600	-
2031	66,200	-	2044	75,300	-
2032	66,900	-	2045	76,100	-
2033	67,600	-			

Snapshot of Current and Recommended Reserve Contribution

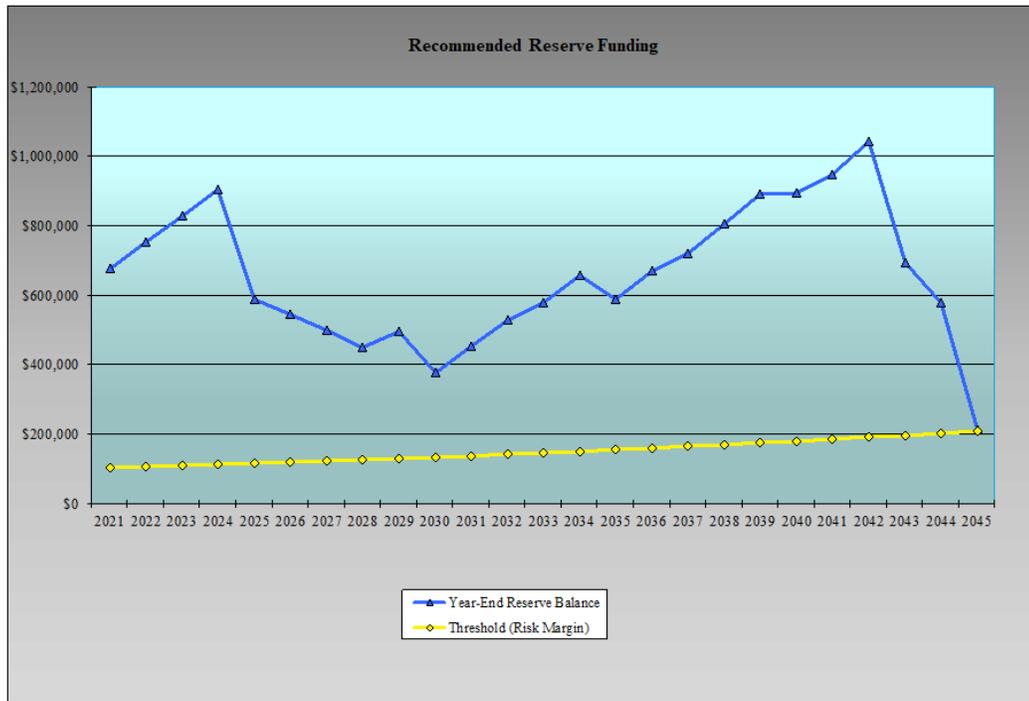
	Annual Amount	Per Unit Per Month (Average)
Projected Reserve Contribution at Start of Next Fiscal Year	\$ 71,070	\$ 29.61
Recommended Reserve Contribution at Start of Next Fiscal Year	\$ 60,100	\$ 25.04
Amount of Increase/(Decrease) Current vs. Recommended	\$ (10,970)	\$ (4.57)
Additional Reserve Contribution (Years 1-10)	\$ 0	\$ 0.00

The recommended year 2021 Reserve Contribution of \$60,100 (\$25.04 per unit per month) reflects a decrease of \$10,970, relative to the projected historic Reserve Contribution, or a decrease of \$4.57 per unit per month. Starting with the 2021 Recommended Reserve Contribution of \$60,100 per annum, and then increasing the Recommended Reserve Contribution by 1.0% per year, the Association’s Reserves will typically remain above zero as well as above the Threshold for all years shown (“Threshold” is discussed in the next paragraph).

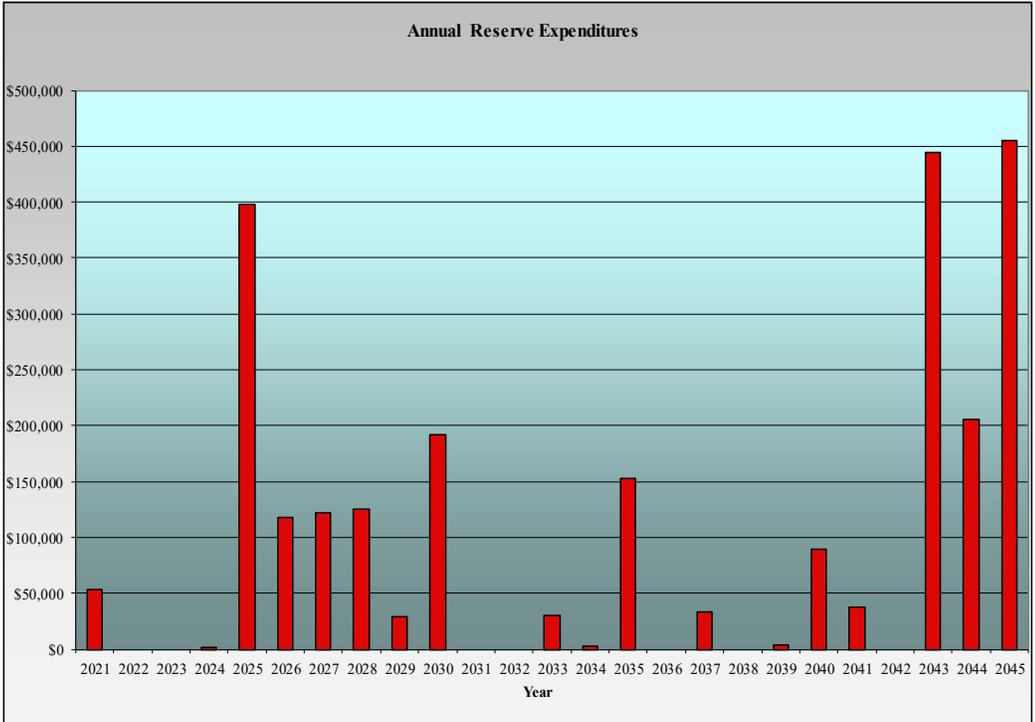
By following the recommended Reserve Contributions, the Association will gradually accrue a Reserve Fund which will provide the financial means to address the major Reserve Component Expenditures which will arise in the future. The recommended Reserve Contribution amount will provide adequate, but not excessive, levels of Reserves, while still

maintaining a reasonable Threshold Margin which suits the particular needs of the Association and will provide a “safety buffer” for unanticipated Reserve Expenditures which are unpredictable but inevitable.

The following graph illustrates the year-end Reserve Fund balance using the Recommended Reserve Funding Plan for the next 25 years.



In order to ensure that significant overfunding or underfunding does not occur, we recommend that the Arbor Hills Condominium Association update this Reserve Study every three to five years, or when any major changes in the Physical or Financial analysis occur. Such changes include accelerated Reserve Component Expenditures undertaken at the client’s discretion, addition (construction) or demolition of Reserve Components, interest rate changes on reserve investments, and changes in local building costs.



ADDENDA

PHOTOGRAPHS



Photograph 1: View of entry area signage



Photograph 2: Typical view of asphalt paved street

PHOTOGRAPHS



Photograph 3: Typical view of asphalt paved street



Photograph 4: Typical view of asphalt paved street

PHOTOGRAPHS



Photograph 5: Typical view of asphalt paved street



Photograph 6: Typical view of concrete curb

PHOTOGRAPHS



Photograph 7: Typical view of concrete curb



Photograph 8: Typical view of catch basin

PHOTOGRAPHS



Photograph 9: Typical view of pond area



Photograph 10: Typical view of mailboxes

PHOTOGRAPHS



Photograph 11: Typical view of pole light fixture



Photograph 12: Typical view of vinyl fence

RESERVE EXPENDITURES AND RESERVE FUNDING PLAN
Formatted for Legal-Size Paper (or Use 150%+ Magnification To View on a Monitor)

Assumptions

3.0% annual inflation rate

2021 year of analysis

Reserve Component Inventory	Quantities	First Year of Replacement	Life Analysis (Yrs.)		Remaining Useful Lives and Estimated Future Replacements Costs																									
			Normal	Remaining	Unit Cost (\$)	RUL=1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
						2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Site Components																														
Concrete Curbing; Phased Partial Replacement	17,466 LF	2025	30-50	5	58.00 PLF	-	-	-	-	57,009	-	-	-	-	66,089	-	-	-	-	76,615	-	-	-	-	88,818	-	-	-	-	102,964
Asphalt; Mill and 1½" Overlay; Phased	233,364 SF	2023	18	3	1.75 PSF	-	-	108,314	111,564	114,911	118,358	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184,398	189,930	195,628	201,497	-
Asphalt; Sealcoat	233,364 SF	2021	4	1	0.09 PSF	21,003	-	-	-	-	-	-	-	26,606	-	-	-	29,945	-	-	-	33,703	-	-	-	37,933	-	-	-	42,694
Catch Basins; Capital Repairs (Synchronized to Mill and 1½ Replace.)	65 UNITS	2023	18	3	2,000 /UNIT	-	-	137,917	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	234,794	-	-	-	-
Pond Dredging	1 LOT	2025	10	5	25,000 /LOT	-	-	-	-	28,138	-	-	-	-	-	-	-	-	-	37,815	-	-	-	-	-	-	-	-	-	50,820
Ponds; Inspect and Clean	1 LOT	2025	10	5	25,000 /LOT	-	-	-	-	28,138	-	-	-	-	-	-	-	-	-	37,815	-	-	-	-	-	-	-	-	-	50,820
Pole Lights; Replacement	40 UNITS	2030	25	10	1,700 /UNIT	-	-	-	-	-	-	-	-	-	88,725	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mailboxes; Replacement	200 UNITS	2021	25	1	125 /UNIT	25,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Fence Along Green Road; Replacement	808 LF	2030	35	10	35.00 PLF	-	-	-	-	-	-	-	-	-	36,899	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entry Signage; Replacement	1 LOT	2021	25	1	7,000 /LOT	7,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Components																														
Reserve Study; Update (Guaranteed Update Price Years 1-5)	1 UNIT	2024	5	4	2,000 /UNIT	-	-	-	2,000	-	-	-	-	2,534	-	-	-	-	2,937	-	-	-	-	3,405	-	-	-	-	3,947	-
						53,003	-	246,231	113,564	228,195	118,358	-	-	29,139	191,712	-	-	29,945	2,937	152,244	-	33,703	-	3,405	88,818	457,126	189,930	195,628	205,444	247,298

HISTORIC AND RECOMMENDED RESERVE FUNDING PLAN
Formatted for Legal-Size Paper (or Use 150%+ Magnification To View on a Monitor)

Assumptions

- 2.0% Average Interest Rate Earned on Invested Reserves
- 3.0% Annual Increase in Collected Reserve Funds for Historic Projection
- 1.0% Annual Increase in Collected Reserve Funds for Recommended Funding Plan
- \$ 500 Per Unit, Threshold For 1st Year
- 200 Number of Units
- No Autocalculate Reserve Contributions

Historic Reserve Funding Projection

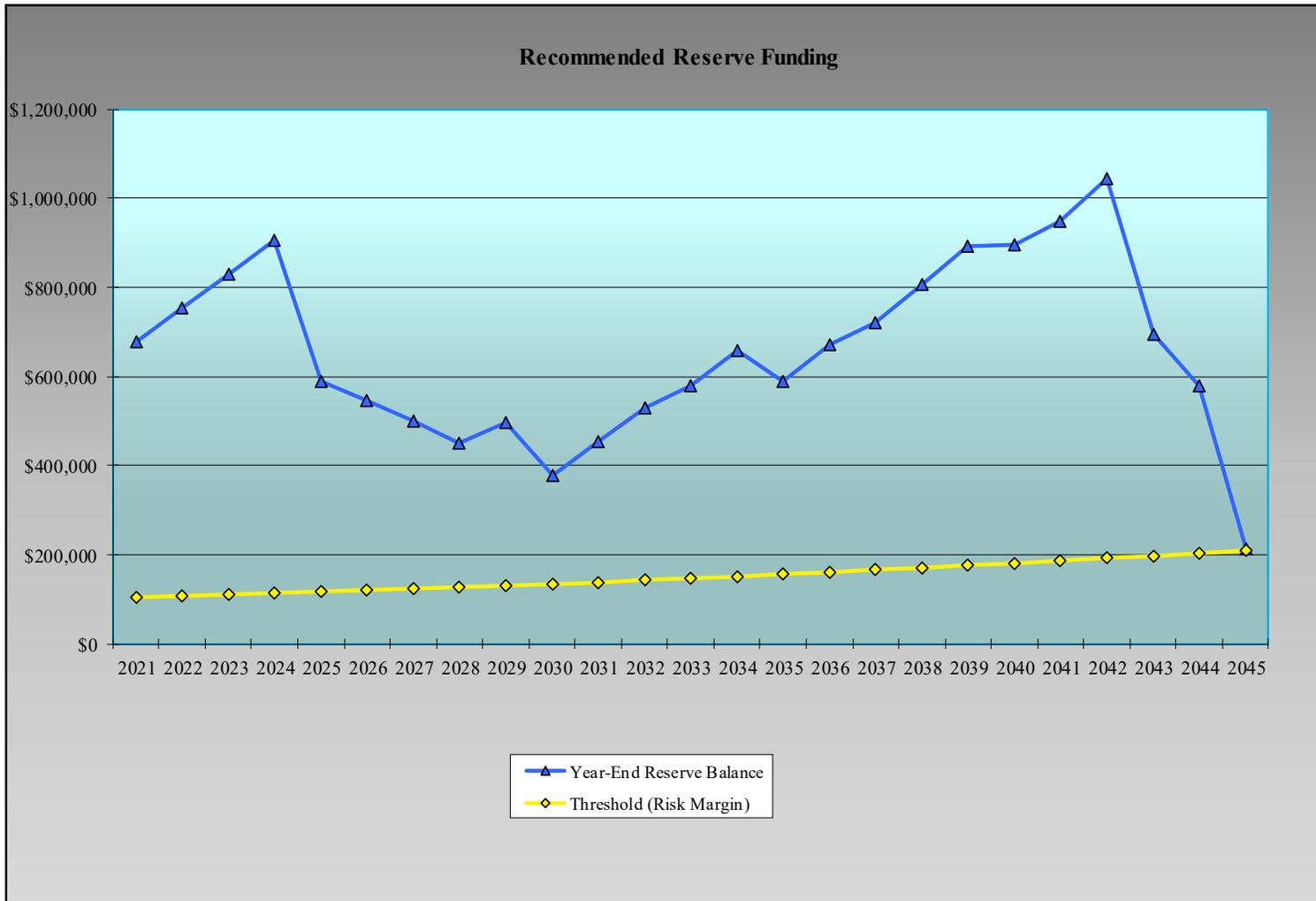
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Reserve Balance at Beginning of Year	\$ 656,007	\$ 687,969	\$ 775,728	\$ 867,463	\$ 961,319	\$ 663,257	\$ 641,452	\$ 618,158	\$ 593,315	\$ 667,053	\$ 582,423	\$ 690,624	\$ 803,887	\$ 892,453	\$ 1,012,871	\$ 989,556	\$ 1,121,278	\$ 1,225,290	\$ 1,368,544	\$ 1,514,821	\$ 1,582,280	\$ 1,705,752	\$ 1,873,519	\$ 1,603,930	\$ 1,572,356	
Plus Recurring Reserve Contribution	71,070	73,202	75,398	77,660	79,990	82,390	84,861	87,407	90,029	92,730	95,512	98,378	101,329	104,369	107,500	110,725	114,046	117,468	120,992	124,622	128,360	132,211	136,177	140,263	144,471	
Plus Additional Reserve Contribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Equals Interim Reserve Balance	727,077	761,171	851,126	945,123	1,041,308	745,647	726,313	705,565	683,344	759,783	677,935	789,002	905,215	996,821	1,120,371	1,100,280	1,235,325	1,342,758	1,489,536	1,639,443	1,710,640	1,837,963	2,009,696	1,744,192	1,716,827	
Plus Estimated Interest Earned, During Year ¹	13,895	14,557	16,336	18,196	20,098	14,163	13,754	13,316	12,848	14,352	12,690	14,885	17,182	18,987	21,429	20,998	23,669	25,786	28,690	31,655	33,045	35,556	38,955	33,607	33,022	
Equals New Reserve Balance	740,972	775,728	867,463	963,319	1,061,407	759,810	740,067	718,881	696,192	774,135	690,624	803,887	922,398	1,015,808	1,141,800	1,121,278	1,258,993	1,368,544	1,518,226	1,671,097	1,743,685	1,873,519	2,048,651	1,777,800	1,749,848	
Less Anticipated Expenditures, By Year	(53,003)	-	-	(2,000)	(398,150)	(118,358)	(121,909)	(125,566)	(29,139)	(191,712)	-	-	(29,945)	(2,937)	(152,244)	-	(33,703)	-	(3,405)	(88,818)	(37,933)	-	(444,721)	(205,444)	(454,840)	
Equals Anticipated Balance of Reserve Fund at Year End	\$ 687,969	\$ 775,728	\$ 867,463	\$ 961,319	\$ 663,257	\$ 641,452	\$ 618,158	\$ 593,315	\$ 667,053	\$ 582,423	\$ 690,624	\$ 803,887	\$ 892,453	\$ 1,012,871	\$ 989,556	\$ 1,121,278	\$ 1,225,290	\$ 1,368,544	\$ 1,514,821	\$ 1,582,280	\$ 1,705,752	\$ 1,873,519	\$ 1,603,930	\$ 1,572,356	\$ 1,295,009	
Threshold Target	\$100,000	\$ 103,000	\$ 106,090	\$ 109,273	\$ 112,551	\$ 115,927	\$ 119,405	\$ 122,987	\$ 126,677	\$ 130,477	\$ 134,392	\$ 138,423	\$ 142,576	\$ 146,853	\$ 151,259	\$ 155,797	\$ 160,471	\$ 165,285	\$ 170,243	\$ 175,351	\$ 180,611	\$ 186,029	\$ 191,610	\$ 197,359	\$ 203,279	\$ 209,378
Amount Over/Under Threshold	\$ 584,969	\$ 669,638	\$ 758,190	\$ 848,768	\$ 547,330	\$ 522,046	\$ 495,171	\$ 466,638	\$ 536,575	\$ 448,031	\$ 552,201	\$ 661,310	\$ 745,599	\$ 861,612	\$ 833,759	\$ 960,808	\$ 1,060,005	\$ 1,198,301	\$ 1,339,470	\$ 1,401,669	\$ 1,519,722	\$ 1,681,908	\$ 1,406,571	\$ 1,369,076	\$ 1,085,631	

Recommended Funding Plan

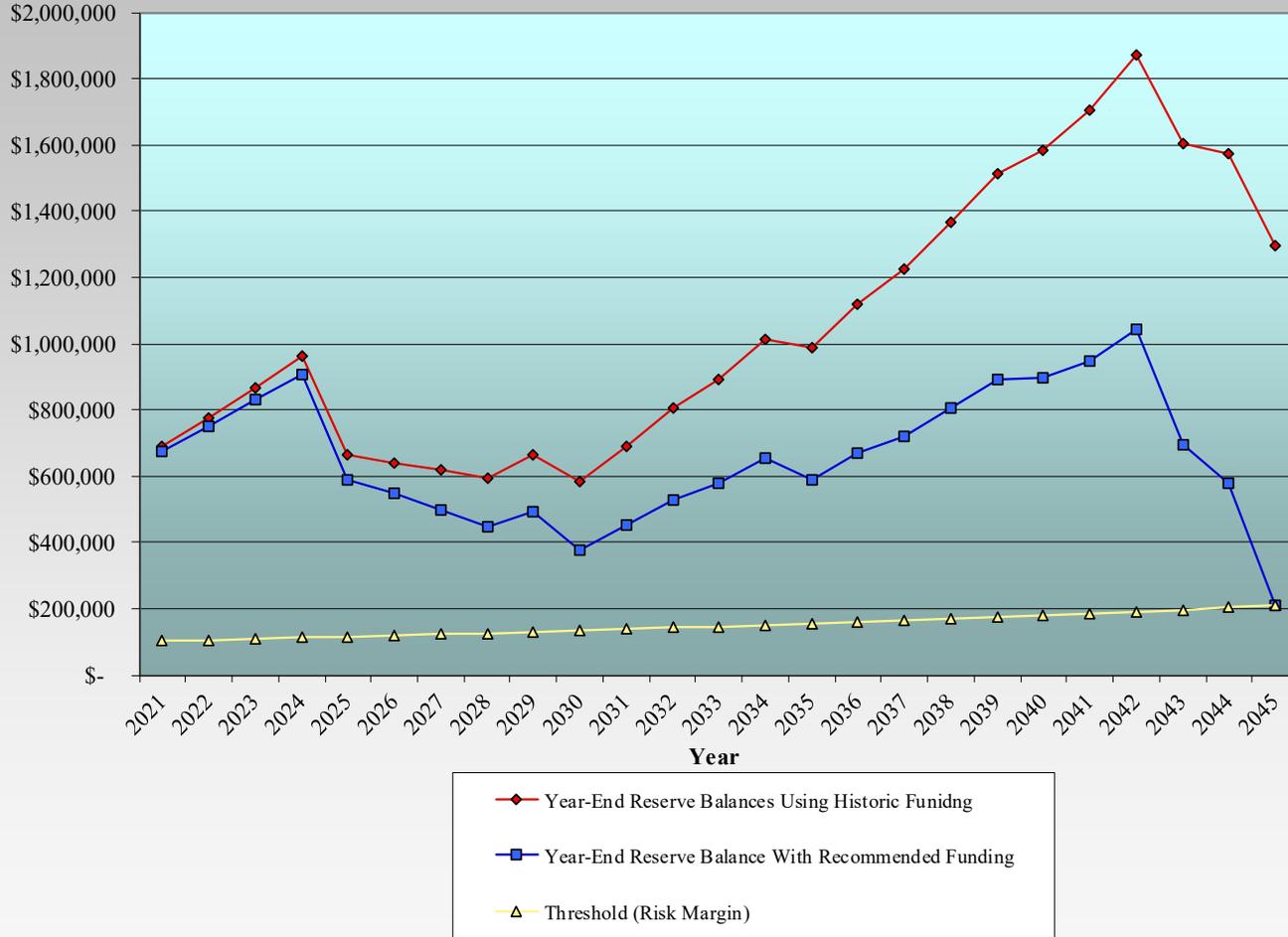
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Reserve Balance at Beginning of Year	\$ 656,007	\$ 676,879	\$ 751,778	\$ 828,782	\$ 905,933	\$ 589,083	\$ 546,294	\$ 499,705	\$ 449,134	\$ 494,585	\$ 378,978	\$ 453,480	\$ 530,178	\$ 579,174	\$ 656,865	\$ 587,510	\$ 669,720	\$ 720,578	\$ 806,865	\$ 892,180	\$ 894,496	\$ 948,451	\$ 1,042,125	\$ 693,659	\$ 578,209	
Plus Recommended Recurring Reserve Contributions	60,100	60,700	61,300	61,900	62,500	63,100	63,700	64,300	64,900	65,500	66,200	66,900	67,600	68,300	69,000	69,700	70,400	71,100	71,800	72,500	73,200	73,900	74,600	75,300	76,100	
Plus Additional Reserve Contribution	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Equals Interim Reserve Balance	716,107	737,579	813,078	890,682	968,433	652,183	609,994	564,005	514,034	560,085	445,178	520,380	597,778	647,474	725,865	657,210	740,120	791,678	878,665	964,680	967,696	1,022,351	1,116,725	768,959	654,309	
Plus Estimated Interest Earned, During Year ¹	13,775	14,199	15,704	17,250	18,800	12,469	11,620	10,695	9,690	10,606	8,301	9,799	11,340	12,328	13,889	12,510	14,162	15,187	16,920	18,634	18,688	19,775	21,656	14,694	12,394	
Equals New Reserve Balance	729,882	751,778	828,782	907,933	987,232	664,652	621,614	574,700	523,724	570,691	453,480	530,178	609,119	659,802	739,754	669,720	754,282	806,865	895,585	983,314	986,384	1,042,125	1,138,381	783,653	666,703	
Less Anticipated Expenditures, By Year	(53,003)	-	-	(2,000)	(398,150)	(118,358)	(121,909)	(125,566)	(29,139)	(191,712)	-	-	(29,945)	(2,937)	(152,244)	-	(33,703)	-	(3,405)	(88,818)	(37,933)	-	(444,721)	(205,444)	(454,840)	
Equals Anticipated Balance of Reserve Fund at Year End	\$ 676,879	\$ 751,778	\$ 828,782	\$ 905,933	\$ 589,083	\$ 546,294	\$ 499,705	\$ 449,134	\$ 494,585	\$ 378,978	\$ 453,480	\$ 530,178	\$ 579,174	\$ 656,865	\$ 587,510	\$ 669,720	\$ 720,578	\$ 806,865	\$ 892,180	\$ 894,496	\$ 948,451	\$ 1,042,125	\$ 693,659	\$ 578,209	\$ 211,864	
Amount Over/Under Threshold	\$ 573,879	\$ 645,688	\$ 719,509	\$ 793,382	\$ 473,155	\$ 426,889	\$ 376,718	\$ 322,457	\$ 364,108	\$ 244,587	\$ 315,056	\$ 387,602	\$ 432,321	\$ 505,606	\$ 431,713	\$ 509,249	\$ 555,294	\$ 636,622	\$ 716,829	\$ 713,885	\$ 762,421	\$ 850,515	\$ 496,301	\$ 374,930	\$ 2,486	

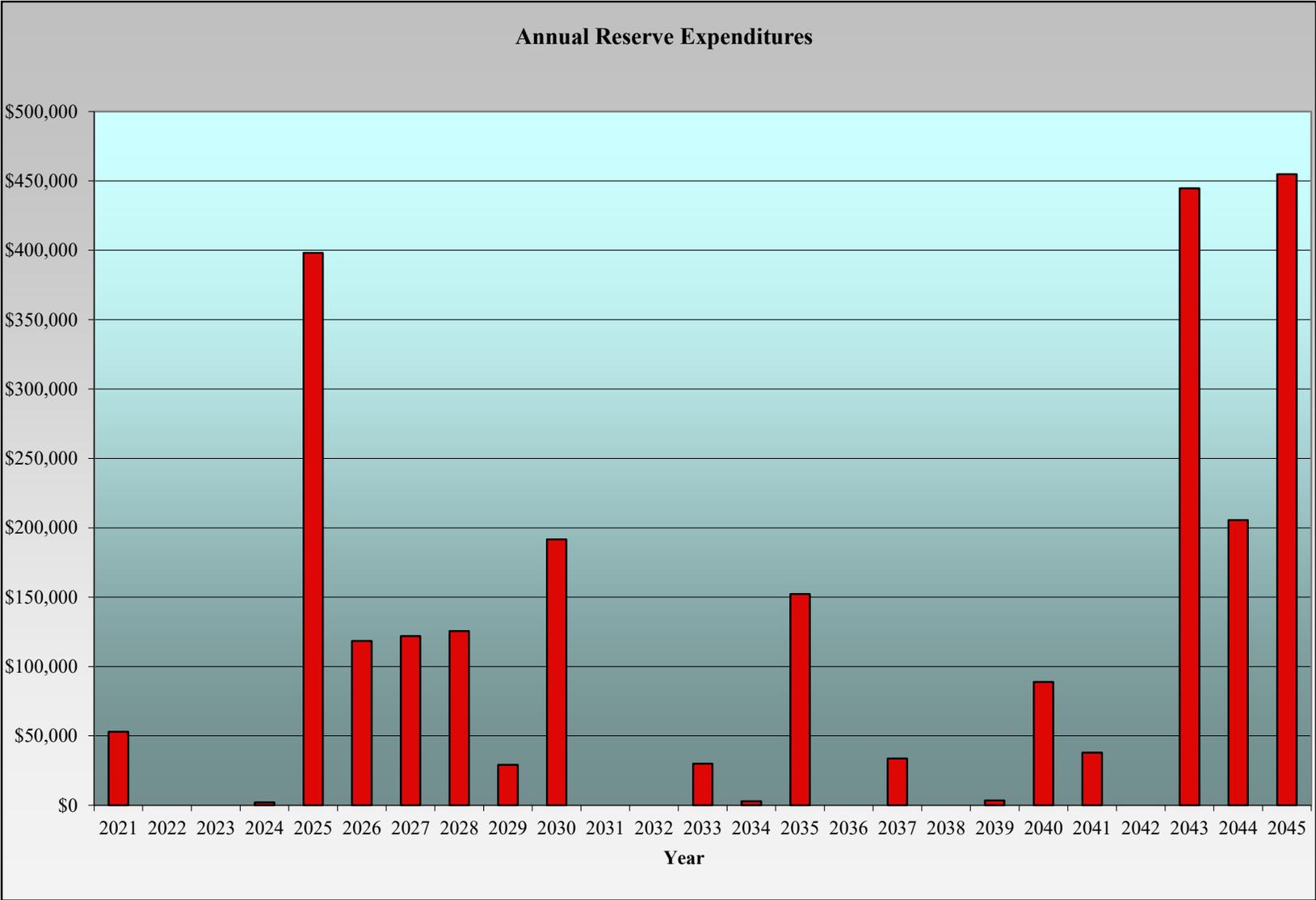
¹ Assuming reserves are invested monthly during the course of the year

RESERVE FUNDING PLAN GRAPHS



Reserve Balances - Historic vs. Recommended





CERTIFICATIONS, ASSUMPTIONS AND LIMITING CONDITIONS

Certifications

I certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions and conclusions.
- I have no present or prospective interest in the property that is the subject of this report, and no personal interest with respect to the parties involved.
- I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- My engagement in this assignment was not contingent upon developing or reporting predetermined results.
- My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined outcome that favors the cause of the client, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- My analyses, opinions, and conclusions are developed, and this report has been prepared, in conformity with the relevant sections of the Uniform Standards of Professional Appraisal Practice of the Appraisal Foundation and the Code of Professional Ethics of the Appraisal Institute.
- I have made a non-invasive inspection of the property that is the subject of this report.
- No one provided significant professional assistance to the person signing this report.
- I certify that the use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- In Michigan, appraisers are required to be licensed/certified and are regulated by the Michigan Department of Consumer and Industry Services, Licensing Division, P.O. Box 30018, Lansing, Michigan 48909.



Paul K.T. Conahan, MBA, RS
State Certified General Real Estate Appraiser
License No. 1201002454

Assumptions and Limiting Conditions

Assumptions

- When doing an “Update With Site Visit” assignment, the Reserve Component inventory was not quantified, although minor additions/deletions of the component inventory, along with their quantities and install dates, were accounted for. The quantification of Reserve Components as determined by the previous reserve study were assumed to be accurate.
- When doing an “Update Without Site Visit” assignment, the Reserve Component conditions were not visually confirmed and updated, and the Remaining Useful Lives of the Reserve Components were calculated based on the assumption that the actual time elapsed since the previous reserve study was added to the effective age as determined in the previous reserve study. However, minor additions/deletions of the Reserve Components, along with their quantities and dates of installation, as reported by the client, were accounted for. Excluding any changes reported by the client, the quantification of Reserve Components as determined by the previous reserve study were assumed to be accurate.
- Responsible and competent property management are assumed. This includes not only responsible and competent oversight with regard to the repair and replacement of the Reserve Components, but also responsible and competent financial management, with particular regard to prudent investment of the Association’s reserve funds.
- Information furnished by representatives of the association regarding financial, physical, quantity, or historical issues were assumed reliable. However, no warranty is given for the accuracy of this information. The actual or projected total reserve balance presented in the Reserve Study is based upon information provided but was not audited. Client’s receipt of the final reserve study will serve as verification that the client has reviewed the reserve study and confirmed that all information provided by the association has been accurately represented in the final reserve study.
- It is assumed that there are no hidden or unapparent conditions on the property, subsoil or structure. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them.
- Unless otherwise stated in this report, the existence of hazardous materials, which may or may not be present on the property, was not observed by the author of this report. The author has no knowledge of the existence of such materials on or in the property. The author, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea formaldehyde foam insulation, lead-based paint, or other potentially hazardous materials may adversely affect the property and require remediation. We assumed that there are no such materials on the property. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.
- It is assumed that there is full compliance with all applicable federal, state, and local environmental regulations and laws, and all other applicable laws and regulations.

- It is assumed that all required licenses, certificates of occupancy, consents or other legislative or administrative authority from any local, state or national government or private entity or organization have been obtained.
- The client is assumed to have deemed previously developed component quantities as accurate and reliable (for update reports only).
- The current work is reliant on the validity of prior Reserve Studies (for update reports only).

Limiting Conditions

- Any dispute arising under this agreement will be settled using binding arbitration under the rules of the American Arbitration Association. Arbitration shall be held in the City of Ann Arbor, Michigan, and one arbitrator will be appointed. Any arbitration award may be entered by any court of competent jurisdiction. The Client understands that absent these provisions, the Client would have the right to sue in court and have a jury trial.
- Unless the time frame is shorter under applicable law, any legal action or claim relating to the reserve study or reserve study provider shall be filed in the applicable arbitration tribunal, within two years from the date of delivery to Client of the reserve study to which the claims or causes of action relate or, in the case of acts or conduct after delivery of the report, two years from the date of the alleged acts or conduct. The time frame stated in this section shall not be extended by any delay in the discovery or accrual of the underlying claims, causes of action or damages. The time frame stated shall apply to all non-criminal claims or causes of action of any type.
- By its nature, a reserve study must make assumptions about the future. Michigan Reserve Associates LLC cannot be held responsible for unforeseeable events that dramatically alter future costs from those projected in the reserve study.
- Reserve Studies do not typically include the repair or replacement of plumbing, electrical wiring, or telephone lines.
- Information provided about reserve projects will be considered reliable. Any on-site inspection should not be considered a project audit or quality inspection.
- For mechanical systems, we have observed those parts of the mechanical equipment and systems that constitute an integral part of the property and that are generally visible. From such observation, we have reported any apparent conditions that we believe might bear on the conclusions of this report. We have not, however, extensively tested such mechanical systems and equipment, and we assume no responsibility for their operating performance.
- No invasive testing was performed on the Reserve Components. We render no opinion on the structural integrity of the property, nor do we offer an opinion as to conformity with governmental code requirements.
- Our opinion of Remaining Useful Life is not a guarantee or warranty of the Reserve Components.

- This study is to be used by the intended user for the purpose of budgeting and long-term major repair and replacement planning. The scope of work included in this study is unique to the intended use and intended user, and this report may not be utilized for any other use or user. Such other uses include, but are not limited to, performing an audit, quality/forensic analysis, or background checks of historical records. The client and its representatives may not transmit this reserve study in any fashion to persons or entities that perform reserve studies.
- Client agreed to furnish Michigan Reserve Associates LLC with a complete and up-to-date set of governing documents. Michigan Reserve Associates LLC cannot be held responsible for incomplete or incorrect documents. We are not attorneys and we cannot guarantee that all reserve components have been properly included or excluded in the reserve study. Client agrees to review the reserve study for accuracy during the review process, and seek legal counsel when necessary. Client agrees that all responsibility for the list of reserve components presented in the final reserve study shall be borne by the client.
- The Americans with Disabilities Act (ADA) became effective on January 26, 1992. We have not made a specific compliance survey and analysis of the subject property to determine whether or not it is in conformity with the various requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more requirements of the ADA. If so, this fact could have a negative impact on the property and trigger compliance costs. We did not consider noncompliance with the ADA requirements for this assignment.
- Our inspection did not address or render an opinion on repairs or replacements arising from original construction defects or unpredictable acts of nature.
- We are not financial advisors, and we recommend that the client consult with its accountant and/or professional investment advisor(s) to develop and refine an investment strategy consistent with the Association's risk profile and Reserve investment profile.
- We are not attorneys, and we recommend that the client consult with its attorney regarding reserve requirements and any other interpretations of relevant law, such as, but not limited to, the Michigan Condominium Act, complementary legislation such as the Nonprofit Corporation Act, and Administrative Rulings.
- Roof areas were measured from the ground using generally accepted techniques which take into account the building footprint, roof overhang, roof pitch, and unique roofing characteristics.
- Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written consent of Michigan Reserve Associates LLC, and in any event only with properly written qualifications and only in its entirety.
- Any illustrative material in this report is included only to assist the reader in visualizing the property and/or provide graphical support to the narrative text.

- We are not by reason of this report, required to give further in-person consultation, testimony or be in attendance in court with reference to the property in question unless prior arrangements have been made.
- Liability due to negligence is limited to the actual cost paid by the client for this engagement.
- Michigan Reserve Associates LLC reserves the right to include your Association's name in our client list. However, all information provided to us, as well as details of interviews, conversations, and the Reserve Study shall be strictly confidential and will not be disbursed to any third party.

QUALIFICATIONS – PAUL K.T. CONAHAN, MBA, RS

CONTACT INFORMATION

Mail: 424 Little Lake Drive, Suite 23, Ann Arbor, Michigan 48103

Phone: (734) 661-1259

Fax: (734) 661-1259

E-mail: paul@MichiganReserveAssociates.com

Web: www.MichiganReserveAssocaites.com

EMPLOYMENT RECORD

Principal, Michigan Reserve Associates LLC, Ann Arbor, Michigan, 2005-Present

Principal, Davis M. Somers Commercial Appraisal Company, Ann Arbor, Michigan, 2018 to the present

Principal, Davis M. Somers Company, Ann Arbor, Michigan, 1991-2018

REALTOR® Associate, Fee Simple Realty, Honolulu, Hawaii, 1985-1987

ADDITIONAL EXPERIENCE

Qualified as Expert Witness, Washtenaw County Circuit Court

Michigan Department of Transportation Approved Level II Appraiser

Approved Fee Appraiser for the United States Veterans Administration

EDUCATION AND DESIGNATIONS

Bachelor of Arts (BA), Biopsychology, Vassar College, Poughkeepsie, New York, Graduated in 1991

Master of Business Administration (MBA) With an Emphasis in Real Estate and Finance, Stephen M. Ross School of Business, University of Michigan, Graduated in 1999

Reserve Specialist (RS), Community Associations Institute, Alexandria, Virginia, Awarded in 2010

APPRAISAL EDUCATION (MOST RECENT SHOWN FIRST)

Residential Construction for Appraisers, McKissock, February 2019

Essential Elements of Disclosures and Disclaimers, McKissock, February 2019

Understanding Residential Construction, McKissock, February 2018

2018-2019 7-Hour National USPAP Update Course, McKissock, February 2018

Michigan Law, McKissock, February 2018

Green Building Construction, McKissock, January 2017

Essential Elements of Disclosures and Disclaimers, McKissock, January 2017

2016-17 7-Hour National USPAP Update Course, McKissock, February 2016
Contemporary Michigan Property Tax Issues, Appraisal Institute, February 2016
Fundamental Concepts of Analysis, McKissock, January 2015
Appraising Fast Food Properties, McKissock, January 2015
Environmental Issues for Appraisers, McKissock, February 2014
Fundamentals of Separating Real Property, Personal Property, and Intangible Business Assets (Course 833), Appraisal Institute, Instructor James Vernor, Ph.D., MAI, April 2012
Essential Elements of Disclosures and Disclaimers, McKissock, December 2011
Appraising Convenience Stores, Appraisal Institute, January 2011
GIS, The Executive Overview, Appraisal Institute, January 2011
Commercial/Residential Construction Inspection, Appraisal Institute, April 2009
Appraising from Blueprints and Specifications, Appraisal Institute, April 2009
Valuation of Detrimental Conditions, Appraisal Institute, Novi, December 2007
What Clients Would Like Their Appraisers to Know, Southfield, December 2006
Effective Appraisal Writing, Appraisal Institute, Ypsilanti, Michigan, October 2006
Appraising Local Retail Properties, Appraisal Institute, Southfield, Michigan, June 2004
Appraising the Tough Ones, Appraisal Institute, Ypsilanti, Michigan, December 2003
Highest & Best Use and Market Analysis (Course 520), Appraisal Institute, Troy, Michigan, April/May 2001

Other Relevant Courses Taken:

Advanced Applications (Course 550), Appraisal Institute
Report Writing and Valuation Analysis (Course 540), Appraisal Institute
Advanced Income Capitalization (Course 510), Appraisal Institute
Challenged and passed Appraisal Procedures (Course 120), Appraisal Institute
Capitalization Theory and Techniques Part A, Appraisal Institute
The Appraiser as an Expert Witness, Appraisal Institute

LICENSES

Certified General Real Estate Appraiser Number 1201002454, State of Michigan, Obtained in 1993
Active Real Estate Associate Broker License Number 6502139365, State of Michigan, Obtained in 2002 (Michigan Real Estate Salesperson License obtained in 1992)
Inactive Real Estate Sales License Number RS-36782, State of Hawaii, Obtained in 1985

ASSOCIATIONS

Member, Community Associations Institute, Since 2005
Member, United Condominium Owners of Michigan, Since 2005

General Associate Member, Candidate for the MAI designation, Appraisal Institute, Chicago, Illinois

Member, International Right of Way Association, Gardena, California, Since 1996

REGULATORY NOTES

In Michigan, appraisers are required to be licensed/certified and are regulated by the Michigan Department of Labor and Economic Growth, Licensing Division, P.O. Box 30018, Lansing, Michigan 48909.

PARTIAL LIST OF CLIENTS

Condominium/Homeowners Associations

1001 Covington Association (Detroit)

297 Condominium Owners Association
(Muskegon)

Aberdeen at Hartford Association
(Macomb)

Autumn Woods Condominium
Association (Ypsilanti)

Bay Cliff Estates Association (Suttons
Bay)

Bellefontaine Meadows Homeowners
Association (Dayton, Ohio)

Benstein Crossing Condominium
Association (Commerce Township)

Birch Grove II Condominium Association
(Chesterfield)

Black Bear Farms Co-Owners'
Association (Traverse City)

Breaker Cove (Bay City)

Brentwood Park Condominium
Association (East Lansing)

Bridgewater Place Condominium
Association (Bridgewater)

Byron Forest Condominium Association
(Byron Center)

Cedar Creek Commons Association
(Traverse City)

Centennial Farm Phase I, Inc. (South
Lyon)

Centennial Farm Phase II, Inc. (South
Lyon)

Chateau Vert Association (Ypsilanti)

Chapel Hill Condominium Association
(Ann Arbor)

Chelsea Square Condominium
Association (Canton)

Colony Farms Condominium Association
(Plymouth)

Cornerstone Village Homeowners
Association (Macomb)

Cottage Glens Owners Association
(Williamsburg)

Creekwood Estates Association (Bay
City)

Crossings at Irving Avenue Condominium
Association (Royal Oak)

Crystal Village Manor (Marysville)

Douglas Harbor Village Condominium
Association (Douglas)

Eaglecrest Condominium Association
(Grand Rapids)

East Lansing City Center Condominium
Association (East Lansing)

Echo Valley Condominium Association
(Farmington Hills)

Fairlane Woods Association (Dearborn)

Fairways at Oak Pointe Condominium
Association (Brighton)

Fieldstone Village Condominium
Association (Chelsea)

Forest at Orchard Lake Association (Farmington Hills)	Island Lake South Harbor Association (Novi)
Fox Pointe Association (Ann Arbor)	Island Lake Woods Association (Novi)
Gallery Park Homeowners Association (Ann Arbor)	Kirkway Homeowners Association (Canton)
Glen Arbor Condominium Association (Grand Blanc)	Knightsbridge Gate Association (Novi)
Great Oak Cohousing Association (Ann Arbor)	Lake Ridge Condominium Association (Traverse City)
Grosse Pointe Gardens Association (Harper Woods)	Lakeside Village Association (Haslett)
Hamilton House Condominium Association (Okemos)	Lakeside Village North Association (Haslett)
Hampton Ridge North HOA (Canton)	Lake Village II (Walled Lake)
Harbour Towne Condominium Association (Muskegon)	Legacy Park Condominium Association (Dearborn Heights)
Haven Condominium Association (South Haven)	Liberty Lofts Condominium Association (Ann Arbor)
Heatherwood Condominium Association (Ann Arbor)	Links of Pheasant Run Condominium Association (Canton)
Highland Park Condominium Association (Cleveland, Ohio)	Locklin Pines Cluster Condominium Association (West Bloomfield)
Heritage Falls Condominium Association (Ann Arbor)	Lost Creek Condominium Association (East Lansing)
Hidden Creek of Oceola Condominium Association (Howell)	Marquette Village Condominium Association (Westland)
Hidden Glen Condominium Association (Canton)	Meadowview Common Condominium Association (Elk Rapids)
Hidden Lake Community Association (South Lyon)	Newberry Place Cohousing Condominium Association (Grand Rapids)
Hometown Village of Marion Association (Howell)	Northridge Estates Homeowners Association (Northville)
Hometown Village at Waterstone Association (Oxford)	Northridge Villas Association (Northville)
Indian Village Condominium Association (Grand Rapids)	Northville Hills Golf Club Homeowners Association (Northville)
Island Lake of Novi Community Association (Novi)	Northville Hollow Condominium Association (Northville)
	Oakhurst Owners' Association (Clarkston)

Oakley Meadow Condominiums Association (Tiffin, Ohio)	Riverside Glen Homeowners Association (Macomb)
Okemos Preserve Condominium Association (East Lansing)	Riverside Park Place Condominium Association (Ann Arbor)
Oxford Park Condominium Association (Canton)	Rochester Park II Association (Rochester)
Parkview Manor Association (Flint)	Saddlebrook Condominium Homeowners Association (Plymouth)
Parkway Condominium Association (Livonia)	Saddle Creek Association (South Lyon)
Perry Farm Village Association (Harbor Springs)	Sand Piper Condominium Association (Glen Arbor)
Pheasant Run Condominium Association (Portage)	St. Lawrence Estates Condominium Association (Northville)
Pine Creek Condominiums of Haslett Association (Haslett)	Scio Village Condominium Association (Ann Arbor)
Pinehurst Condominium Association (Trenton)	Spruce Manor Condominium Association (Royal Oak)
Pittsfield Village Condominium Association (Ann Arbor)	Steeple Chase of Northville Owners Association (Northville)
Plymouth Corners Condominium Association (Plymouth)	Steeple Ridge Condominium Association (Clarkston)
Plymouth Landing Association (Canton)	Stone Lake Condominium Association (East Lansing)
Pointe Park Homeowners Association (Grosse Point Park)	Stonewater Homeowners Association (Northville)
Providence Tower Association (Southfield)	Stratford Townhouses Consumer Housing Cooperative (Grand Rapids)
Quail Run of South Lyon Condominium Association (South Lyon)	Sunset Torch Association (Bellaire)
Raintree Condominiums of Chesterfield Association (Chesterfield)	The Atrium Inn Condominium Association (Boyer City)
Reserve at Tull Lake Condominium Association (White Lake)	The Courtyards at Little Bear Condominium Association (Lewis Center, Ohio)
River House Co-Op (Detroit)	The Landings at Rayner Ponds Condominium Association (Mason)
River Park Estates Condominium Association (Lansing)	The Links of Northville Hills Golf Club Condominium Association (Northville)
River's Edge at Cherry Hill Village I Homeowners Association (Canton)	The Lodge at East Bay Co-Owners Association (Elk Rapids)

The Maples of Novi, Maple Pointe Association (Novi)	Village Oaks Common Areas Association (Novi)
The Ponds Cooperative Homes (Okemos)	Villa Capri Condominium Association (Warren)
The Preserve at Maple Lake Association (Milford)	Villas at Northville Hills Condominium Association (Northville)
The Ravines of Northville Homeowners Association (Northville)	Villas at Stonehenge Condominium Association (Kalamazoo)
The Reserve at the Fairways Condominium Phase 1 Association, Inc. (Huber Heights, Ohio)	Vistas of Central Park Condominium Association (Canton)
The Residences at TPC Association (Dearborn)	Walden Hills II Condominium Association (Ann Arbor)
The Village Condominium Association (Grosse Pointe)	Walnut Woods Condominium Association (West Bloomfield)
The Willits Condominium Association (Birmingham)	Walton Pond Condominium Association (Pontiac)
Thornberry Condominium Association (Midland)	Water's Edge Condominium Association (Clarkston)
Thornton Farms Condominium Association (Dexter)	Wedgewood Village Association (Plymouth)
Tollgate Woods Homeowners Association (Novi)	Whetherstone Condominium Association (White Lake)
Touchstone Cohousing Association (Ann Arbor)	Whitney Court of West Bloomfield (West Bloomfield)
Traditions at Cambridge Association (Canton)	Windward Court Condominium Association (Detroit)
University Commons Condominium Association (Ann Arbor)	Woodfield Square Association (Brighton)
Valley Wood Condominium Association (Livonia)	Woodland Creek Condominium Association (Kentwood)
Vantage Pointe Condominium Association (Glen Arbor)	Woodland Ridge of Commerce Association (Commerce Township)
Venn Manor (Detroit)	Woodland Trails Condominium Association (Okemos)
Verndale Lakes Condominium Association (Lansing)	Woodlore Condominium Owners Association (Livonia)
Versailles Place Condominium Association (Farmington Hills)	Woods of Northville (Plymouth)
	Woodside Meadows Condominium Association (Ann Arbor)

Woodward Place Association
(Birmingham)

Woodward Place at Brush Park I
Association (Detroit)

Woodwind Glen Condominium
Association (South Lyon)

Educational/Institutional/Non-Residential
Organizations

Anthroposophical Society in America
(Ann Arbor)

Michigan Friends Center (Chelsea)

Rudolph Steiner School of Ann Arbor
(Ann Arbor)

Chelsea District Library (Chelsea)

Oak Grove AME Church (Detroit)

The Waterfront Marina of St. Joseph (St.
Joseph)

St. Joseph River Yacht Club (St. Joseph)

Ward Evangelical Presbyterian Church
(Northville)