



CAPITAL RESERVE STUDY

CATEGORY 1: FULL STUDY



KINGS COVE NEIGHBORHOOD ASSOCIATION ARBEGAST DRIVE, BRIGANTINE, NEW JERSEY 08203

Fiscal Year: 2022
Fiscal Year Date Span: March 1, 2022 - February 28, 2023
Care of: Thompson Realty
1613 Atlantic Avenue, Atlantic City, New Jersey 08401
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Abbreviations

CY	=	Cubic Yard
EA	=	Each
LF	=	Linear Foot
LS	=	Lump Sum
MBTU	=	Thousand British Thermal Units
MSF	=	Thousand Square Feet
NO	=	Number
PT	=	Pressure Treated
SF	=	Square Foot
SQ	=	Square (100 square feet)
SY	=	Square Yard

Introduction & General Information

A Capital Reserve Study is a report prepared to estimate the amount of money which must be put aside for future repairs and replacements to the Association’s physical plant. The report is a tool for evaluating and establishing a stable level of reserve funding.

The primary reason to set aside reserve funds is to ensure that adequate funds are available for anticipated long-term maintenance of common areas. Reserve funding is a means of fairly distributing the costs of future replacement to the common elements among all owners. The reserve fund is integral to the Association’s administration of fiscal planning and budgeting. In addition, the reserve funding is an indicator of the financial strength of the Association which will affect the value of the units.

This Reserve Study consists of two (2) parts: the physical analysis and the financial analysis. This Capital Reserve Study was prepared in accordance with the “National Reserve Study Standards” of the Community Associations Institute (C.A.I.).

The following three categories describe the various types of Reserve Studies, from exhaustive to minimal:

	Reserve Study Tasks:	Category I: Full	Category II: Update <small>with Site-Visit & On-Site Review</small>	Category III: Office Update <small>No Site-Visit & Off-Site Review</small>
Physical Analysis	Component Inventory	X (quantification)	X (verification only)	
	Condition Assessment	X (based upon on-site visual observations)	X (based upon on-site visual observations)	
Financial Analysis	Life & Valuation Estimates	X	X	X
	Fund Status	X	X	X
	Funding Plan	X	X	X

This report will analyze the future replacement costs for common elements which are capital items with a reasonably predictable useful life. The capital items will be limited to those items which have a useful life exceeding two (2) years. If a certain item requires replacement more often than every two (2) years, it should be included in the operating budget. Furthermore, items will be excluded if they have an insignificant cost or if they are permanent in nature. Items with an insignificant cost would be those that could be funded in the operating budget without any adverse financial impact. Items of a permanent nature are those which exceed the thirty (30) year study period and those which are integral to reconstruction of the entire project, such as; concrete footings, foundation walls, crawlspace and roof wood framing, in-wall utility services and stormwater piping. Since the remaining useful life estimates, inflation and interest need on-going review, it is recommended that the study be updated every three (3) to five (5) years. An older Association with a significant amount of repair and replacement activity may need to update its study annually.

Terms & Definitions

1. **Capital Improvement:** Additions to the association’s common elements that previously did not exist. While these components should be added to the reserve study for future replacement, the cost of construction should not be taken from the reserve fund.
2. **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.
3. **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:
 - a) Association responsibility
 - b) with limited Useful Life expectancies
 - c) predictable Remaining Useful Life expectancies
 - d) above a minimum threshold cost
 - e) as required by local codes.
4. **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, a review of established association precedents and discussion with appropriate Association representative(s).
5. **Component Method:** A method of developing a Reserve Funding Plan where the total contributions are based on the sum of contributions for individual components. See “Cash Flow” method.
6. **Condition Assessment:** The task of evaluating the current condition of the component based on observed or reported characteristics.
7. **Current Replacement Cost:** See “Replacement Cost.”
8. **Effective Age:** The difference between the Useful Life and the Remaining Useful Life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computations.
9. **Financial Analysis:** The portion of a Reserve Study where 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.
10. **Fully Funded:** One-hundred (100%) percent Funded. When the actual (or projected) Reserve Balance is equal to the Fully Funded Balance
11. **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 the life “used up” of the current Repair of Replacement cost. This number is calculated for each component, then summed together for an association total. Two (2) 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.

$$(FFB) = \frac{\text{Current Cost} \times \text{Effective Age}}{\text{Typical Useful Life}}$$

or

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

12. **Fund Status:** The status of the Reserve Fund as compared to an established benchmark such as percent funding.
13. **Funding Goals:** Independent of methodology used, the following represent the basic categories of funding plan goals. They are presented in order of greatest risk to least risk. Risk includes, but is not limited to, cash problems, special assessments, and deferred maintenance.
 - a) **Baseline Funding:** Establishing a reserve funding goal of allowing the reserve cash balance to never be below zero during the cash flow projection. This is the funding goal with the greatest risk due to the variabilities encountered in the timing of component replacements and repair and replacement costs.
 - b) **Threshold Funding:** Establishing a reserve funding goal of keeping the reserve balance above a specified dollar or percent funded amount. Depending on the threshold selected, this funding goal may be weaker or stronger than “Fully Funded” with respective higher risk or less risk of cash problems.
 - c) **Full Funding:** Setting a reserve funding goal to attain and maintain reserves at or near 100 percent funded. This is the most conservative funding goal.

It should be noted that in certain jurisdictions there may be statutory funding requirements that would dictate the minimum requirements for funding.

14. **Funding Plan:** An Association’s plan to provide income to a Reserve Fund to offset anticipated expenditures from that fund.
15. **Funding Principles:**
 - a) Sufficient Funds when Required
 - b) Stable Contribution Rate over the Years
 - c) Evenly Distributed Contributions over the Years
 - d) Fiscally Responsible
16. **Life and Valuation Estimates:** The task of estimating Useful Life, Remaining Useful Life and Repair or Replacement Costs for the Reserve components.
17. **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.
18. **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.
19. **Remaining Useful Life:** Also referred to as “Remaining Life”. The estimated time, in years, that a reserve component can be expected to continue to serve its intended function.
20. **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.
21. **Reserve Balance:** Actual or projected funds as of a particular point in time that the Association has identified for use to defray the future replacement of those major components which the Association is obligated to maintain. Also known as Reserves, Reserve Accounts, Cash Reserves.
22. **Reserve Provider:** An individual that prepares Reserve Studies.
23. **Reserve Provider Firm:** A company that prepares reserve studies as one of its primary business activities.
24. **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 (2) parts: the Physical Analysis and the Financial Analysis.

25. **Responsible Charge:** A Reserve Specialist (RS) in responsible charge of a reserve study shall render regular and effective supervision to those individuals performing services that directly and materially affect the quality and competence of services 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 or she 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:
- a) The regular and continuous absence from principal office premises from which professional services are rendered; except for performance of field work or presence in a field office maintained exclusively for a specific project;
 - b) The failure to personally inspect or review the work of subordinates where necessary and appropriate;
 - c) The rendering of a limited, cursory or perfunctory review of plans or projects in lieu of an appropriate detailed review; and
 - d) The failure to personally be available on a reasonable basis or with adequate advanced notice for consultation and inspection where circumstance require personal availability.
26. **Special Assessment:** An assessment levied on the members of an Association in addition to regular assessments in anticipation of unexpected common element replacement and funding deficit. Special assessments are often regulated by governing documents or local statutes.
27. **Surplus:** An actual (or projected) Reserve Balance greater than the Fully Funded Balance. See “Deficit”.
28. **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

At the time this reserve study was conducted FWH Associates, P.A. (FWH) has had no involvements with the Association, which could result in actual or perceived conflicts of interest.

Any on-site inspections performed as a part of this Capital Reserve Study are inclusive of all common areas within the community, and are non-destructive in nature.

The completeness of this Capital Reserve Study is dependent upon the agreement that all relevant information has been provided to FWH. Any materials that have not been disclosed would cause a distortion of the Association's situation. Information provided by the official representative of the Association regarding financial, physical, quantity, or historical issues will be deemed reliable by FWH.

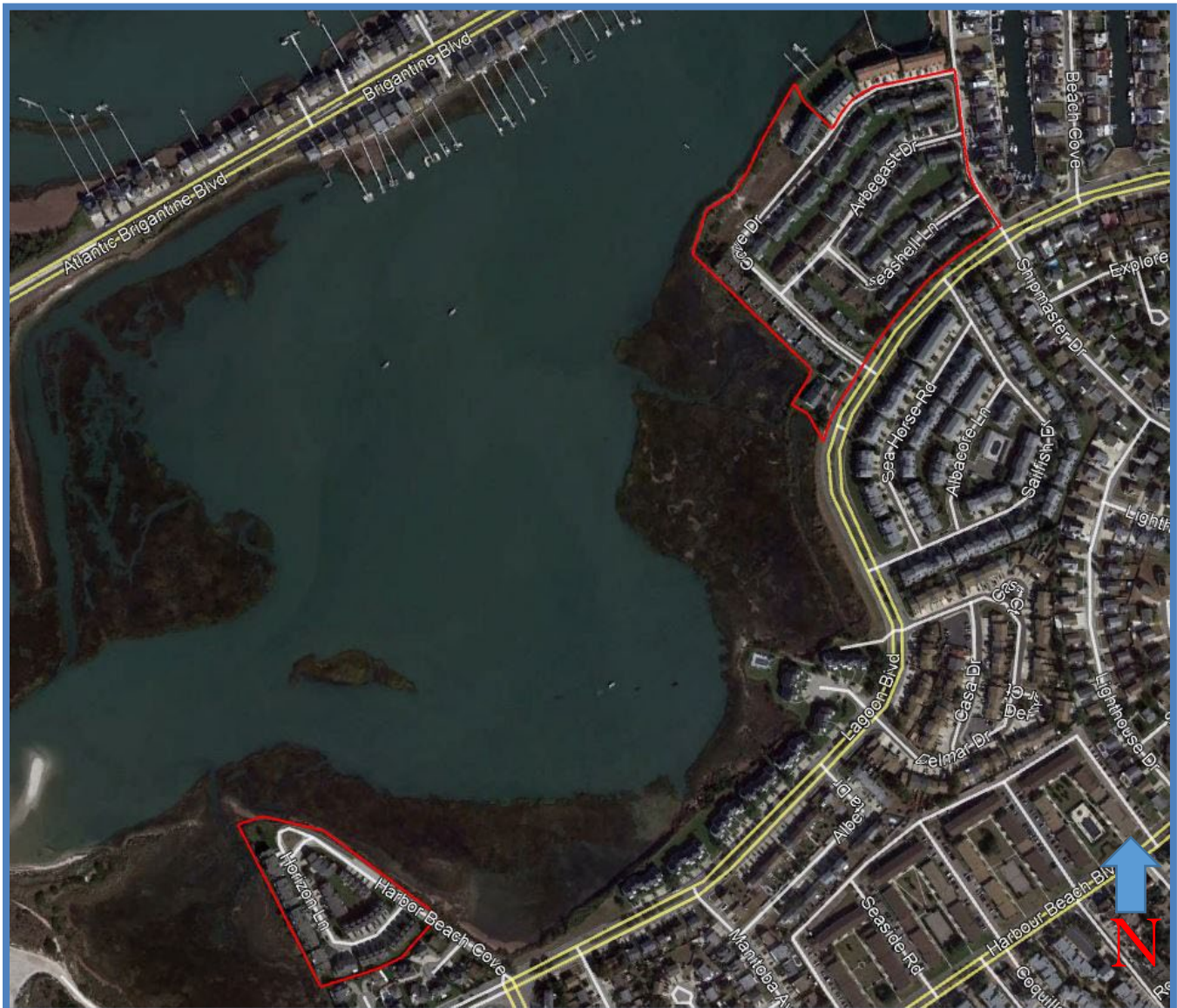
The reserve study will be a reflection of information provided to FWH and assembled for the Association's use, not for the purpose of performing an audit, quality/forensic analysis, or background checks of historical records.

All information provided to FWH regarding reserve projects will be considered reliable. On-site inspections should not be considered project audits or quality inspections.

Association Physical Description

Kings Cove is a community consisting of two-hundred fourteen (214) residential units housed within thirty-six (36) buildings located in Brigantine, Atlantic County, NJ.

The Kings Cove Association has two main points of entry accessible from Lagoon Boulevard and Harbor Beach Cove. The Association is responsible for the replacement of the common elements within the community, which include the irrigation system components.



Arbegast Drive, Brigantine, New Jersey 08203

Courtesy of © 2021 Google Maps

Bibliography

1. Gap #24. A Complete Guide to Reserve Funding and Reserve Investment Strategies, 3rd Edition by The Community Associations Institute.
2. R.S. Means Building Construction Cost Data - 2021, by Construction Consultants and Publishers.
3. R.S. Means Site Work and Landscape Cost Data - 2021, by Construction Consultants and Publishers.
4. National Reserve Study Standards of The Community Association Institute, 2021.
5. Best Practices, Reserve Studies / Management, published by Community Associations Institute Research Foundation, 2017.
7. Declaration of Covenants, Conditions, and Restrictions, prepared by Kings Cove Limited Partnership, dated March 5, 1984.

Study Methodology & Assumptions

The common elements were identified through the Declaration of Covenants, Conditions, and Restrictions. The quantities used in the replacement cost estimations of the common elements were taken from the plans provided by the Association. The remaining life expectancies of the common elements were determined by FWH through visual site inspections of the accessible common elements performed on June 18, 2021, through the experience of FWH, and by information provided by the Association. The Kings Cove community was constructed in 1984, which is used as the base year of installation for the original common elements.

The current replacement costs were estimated utilizing published construction cost data, estimates provided by contractors, and cost data from recent similar projects performed by this firm. The useful life and remaining useful life were estimated based on field inspections of the items and on the assumption that adequate preventative maintenance exists and will be followed by the Association. Without proper maintenance, the common elements can deteriorate quickly and require funds from the reserves for replacement earlier than planned.

Many capital replacement projects may require a more detailed investigation to determine the scope of work required for the particular project. The preparation of construction specifications is typically recommended. The additional investigations may reveal hidden deficiencies and/or building code requirements, which may result in cost increases above the unit costs listed in the reserve schedule.

At their own discretion, the Association may defer common element replacement projects suggested as part of this study. Deferment of recommended replacement projects is not advisable as this often leads to increased replacement costs due to additional deterioration of the common element.

It should be noted that this data is an estimate based upon the experience of this firm. The work was performed pursuant to generally accepted standards of practice. Since accurate and detailed control over market conditions, usage, rate of deterioration, maintenance or weather conditions is not feasible, the actual costs and useful life expectancy will vary from the estimates presented. We cannot and do not represent or guarantee that the actual costs or useful life expectancy will not vary from those presented in this report. Periodic updates of the reserve study will make adjustments so that these variations will have no significant impact to the budget. It is recommended that the study be updated every three (3) to five (5) years.

The Capital Reserve Funding Plan developed within this report is based on the cash flow method. The cash flow method is 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. This report uses the threshold funding method, in which the reserve balance is kept above a percent funded amount. The threshold amount is determined by taking a percentage of the total value of all scheduled item replacement costs and is identified in the notes section of this report.

Capital Replacement Items

-Where a condition of a particular common element is provided within the description, the condition assessment takes into consideration how old the item is, e.g. a roof that is one (1) year old can be in average condition if it is aging at an average rate.

1. **Irrigation**

The green spaces of the community are irrigated with an automatic sprinkler system. Water is supplied by the public water system. Underground service pipe is very durable and is not expected to require complete replacement during the scope of this study. It is important that the system is inspected and maintained by a professional, particularly before and after the winter season. All sprinkler heads will be replaced on an *as needed* basis through the operating budget.

Components of the irrigation systems include, but are not limited to, controllers, zone valves, timers, backflow preventers, and wiring. The controllers, zone valves, and timers possess a typical useful life of fifteen (15) years, while the backflow preventers have a typical useful life of twenty (20) years. The wiring has a long typical useful, however, due to the necessity to repair and replace the irrigation system wiring an annual allowance has been included within the schedules to allow the Association to fund towards its replacement.

The information and quantities pertaining to the irrigation components were provided by the current irrigation company servicing the community and through information provided by the client.

Excluded Items

1. **Residential Units**
The replacement of all individual unit items is the responsibility of the unit owners.
2. **Driveways and Aprons**
The individual unit driveways and concrete aprons are the responsibility of the individual unit owner.
3. **Sidewalks**
The concrete sidewalks located on each individual unit owner's lot is the responsibility of the unit owner.
4. **Street Lights**
Lighting located throughout the community right-of-ways is the responsibility of the local power company.
5. **Roadways**
The roadways that exist within the community are the responsibility of the Township.
6. **Irrigation Heads**
Irrigation heads are replaced on an *as needed* basis through the operating budget. It is not expected that the sub-surface service piping will require complete replacement during the thirty (30) year scope of this study.
7. **Irrigation System Piping**
The underground piping servicing the community's irrigation system has a long typical useful life and should last beyond the thirty (30) year scope of this study.

Financial Analysis & Funding Plan

The estimated reserve amount effective as of March 1, 2022 has been projected into the future based on the existing funding plan and information provided by the Association. It is the opinion of FWH Associates, P.A. that the Association's current reserve fund status is *inadequate*.

The following calculations are based upon the occupancy of two-hundred fourteen (214) units.

Previous Fiscal Year Summary:

The 2021 total annual reserve contribution amounted to: **\$0**.

Current Fiscal Year Summary:

The 2022 total annual reserve contribution amounts to: **\$12,043**.

Appendix A: Reserve Component Inventory

The replacement reserve schedule (Appendix A) lists all the capital expense items with useful life, estimated remaining useful life, quantity and current replacement value.

Appendix B: Yearly Expense Projection

The yearly expense projection schedule provides an annual synopsis of when items are to be replaced. It also depicts which items will require replacement more than once throughout the course of the thirty (30) year study.

An annual inflation rate of 3% is applied to the projected capital reserve expenses.

Appendix C: Funding Plan

The funding plan (Appendix C) estimates the total expenses to be spent annually over the thirty (30) year study period, and the yearly contribution.

The projected starting reserve balance (as of the Fiscal Year start date) was computed based on the existing funding plan and via information provided by the Association. The actual or projected reserve balance total presented in the Reserve Study is based upon information provided and was not audited.

An interest rate of 0.45% supplied by the Association is applied to the accumulated reserve funds.

The cash flow chart has been prepared to allow the Association to maintain a yearly ending balance at or above the ten (10%) percent minimum threshold of \$12,495.

It should be noted that fiscal year 2046 is a critical year, as the ending balance is at the minimum threshold.

In anticipation of capital expenditures throughout the study, the reserve contributions increase annually through 2022, then remain steady thereafter.

WTM

REPLACEMENT RESERVE COMPONENT INVENTORY
Effective as of March 1, 2022

36 Buildings
214 Units

Projected Reserve Balance: \$86,487

Item	Year Installed/ Replaced	Typical Useful Life	Estimated Remaining Useful Life	Estimated Quantity	Unit Cost	Current Replacement Cost
SITWORK						
Irrigation						
1. Controllers	1984	15	0	3 EA	\$3,000	\$9,000
2. Controller (2017)	2017	15	10	1 EA	\$3,000	\$3,000
3. Timers	1984	15	0	4 EA	\$250	\$1,000
4. Zone Valves (over 10 years)	1984	15	0	50 EA	\$2,100	\$105,000
5. Zone Valve (2017)	2017	15	10	1 EA	\$2,100	\$2,100
6. Zone Valve (2020)	2020	15	13	1 EA	\$2,100	\$2,100
7. Backflow Preventers	1984	20	0	7 EA	\$250	\$1,750
8. Wiring Allowance (\$1,000 annually w/o inflation)	1984	50	0	1 LS	\$1,000	\$1,000
SubTotals:						\$124,950

TOTAL: \$124,950

YEARLY EXPENSE PROJECTION
Effective as of March 1, 2022

Item	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	26	27	28	29	30		
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051		
iFactor @ 3.00%	1.000	1.030	1.061	1.093	1.126	1.159	1.194	1.230	1.267	1.305	1.344	1.384	1.426	1.469	1.513	1.558	1.605	1.653	1.702	1.754	1.806	1.860	1.916	1.974	2.033	2.094	2.157	2.221	2.288	2.357		
SITWORK																																
Irrigation																																
1. Controllers	\$9,000															\$14,022																
2. Controller (2017)										\$3,914																						
3. Timers	\$1,000															\$1,558																
4. Zone Valves (over 10 years)	\$10,500	\$10,815	\$11,139	\$11,474	\$11,818	\$12,172	\$12,538	\$12,914	\$13,301	\$13,700						\$16,359	\$16,849	\$17,355	\$17,876	\$18,412	\$18,964	\$19,533	\$20,119	\$20,723	\$21,344							
5. Zone Valve (2017)										\$2,740																						
6. Zone Valve (2020)													\$2,994																			
7. Backflow Preventers	\$1,750																				\$3,161											
8. Wiring Allowance (\$1,000 annually w/o inflation)	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
TOTALS:	\$23,250	\$11,815	\$12,139	\$12,474	\$12,818	\$13,172	\$13,538	\$13,914	\$14,301	\$14,688	\$15,075	\$15,472	\$15,879	\$16,296	\$16,723	\$17,160	\$17,607	\$18,064	\$18,531	\$19,008	\$19,495	\$19,992	\$20,499	\$21,016	\$21,543	\$22,080	\$22,627	\$23,184	\$23,751	\$24,328	\$24,915	\$25,512

FUNDING PLAN
Effective as of March 1, 2022

Projected Reserve Balance: \$86,487

36 Buildings

10% Threshold: \$12,495

214 Units

Fiscal Year	Beginning Balance as of Mar 1	Reserve Contribution (Mar 1 - Feb 28)	Net Interest @ 0.450%	Annual Expenses	Ending Balance
2022	\$86,487	\$12,043	\$364	\$23,250	\$75,644
2023	\$75,644	\$12,043	\$341	\$11,815	\$76,213
2024	\$76,213	\$12,043	\$343	\$12,139	\$76,460
2025	\$76,460	\$12,043	\$343	\$12,474	\$76,372
2026	\$76,372	\$12,043	\$342	\$12,818	\$75,940
2027	\$75,940	\$12,043	\$339	\$13,172	\$75,150
2028	\$75,150	\$12,043	\$335	\$13,538	\$73,990
2029	\$73,990	\$12,043	\$329	\$13,914	\$72,448
2030	\$72,448	\$12,043	\$321	\$14,301	\$70,511
2031	\$70,511	\$12,043	\$296	\$21,354	\$61,497
2032	\$61,497	\$12,043	\$302	\$1,000	\$72,841
2033	\$72,841	\$12,043	\$353	\$1,000	\$84,237
2034	\$84,237	\$12,043	\$397	\$3,994	\$92,683
2035	\$92,683	\$12,043	\$442	\$1,000	\$104,169
2036	\$104,169	\$12,043	\$494	\$1,000	\$115,705
2037	\$115,705	\$12,043	\$474	\$32,938	\$95,284
2038	\$95,284	\$12,043	\$416	\$17,849	\$89,893
2039	\$89,893	\$12,043	\$390	\$18,355	\$83,972
2040	\$83,972	\$12,043	\$363	\$18,876	\$77,502
2041	\$77,502	\$12,043	\$332	\$19,412	\$70,466
2042	\$70,466	\$12,043	\$292	\$23,125	\$59,676
2043	\$59,676	\$12,043	\$249	\$20,533	\$51,436
2044	\$51,436	\$12,043	\$211	\$21,119	\$42,571
2045	\$42,571	\$12,043	\$170	\$21,723	\$33,061
2046	\$33,061	\$12,043	\$102	\$32,712	\$12,495
2047	\$12,495	\$12,043	\$81	\$1,000	\$23,619
2048	\$23,619	\$12,043	\$131	\$1,000	\$34,794
2049	\$34,794	\$12,043	\$171	\$5,665	\$41,343
2050	\$41,343	\$12,043	\$211	\$1,000	\$52,597
2051	\$52,597	\$12,043	\$262	\$1,000	\$63,902
TOTALS:		\$361,296	\$9,194	\$393,075	\$63,902