

REPLACEMENT RESERVE REPORT FY 2020 SPRING BREEZE COMMUNITY ASSOCIATION



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SPRING BREEZE COMMUNITY ASSOCIATION

Community Management by:

TIDEWATER PROPERTY MANAGEMENT

Don Gentry

3706 Crondall Lane, Suite 105
Owings Mill, Maryland 21117
443.548.0191
dgentry@tidewaterproperty.com

Consultant:

millerdodson | Capital Reserve Consultants
ASSOCIATES

2661 Riva Road, Suite 1023
Annapolis, MD 21401
410.268.0479
800.850.2835

MillerDodson.com

millerdodson | Capital Reserve Consultants
ASSOCIATES

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REPLACEMENT RESERVE REPORT

SPRING BREEZE

COLUMBIA MARYLAND

October 8, 2019



Description. Spring Breeze is a townhouse community located in Columbia Maryland. Constructed in 1981 and 1982, the community consists of 19 buildings containing 131 townhouse units. The survey examined the common elements of the property, including:

- Asphalt access drives parking areas and asphalt path.
- Concrete flatwork, monolithic curb & sidewalks and barrier curbs.
- Cluster mailboxes, retaining walls, fencing, and railings.
- Site steps, stepping stones, pavers and stormwater drainage.

Level of Service. This study has been performed as a Level 1 Full-Service Reserve Study as defined under the National Reserve Study Standards that have been adopted by the Community Associations Institute. As such, a complete inventory of components was established for the commonly owned elements of this facility based on information provided by the Community Manager, Mr. Don Gentry, or by quantities that were developed from field measurement as performed by the Analyst. The condition of each inventory component was established by the Analyst, based on a visual inspection or review of provided historical data with a major repair or replacement cost for each also set. The included fund status and funding plan have been derived from analysis of this inventory.

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Overview, Standard Terms, and Definitions
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To aid in the understanding of this report and its concepts and practices, on our web site, we have developed [videos](#) addressing frequently asked topics. In addition, there are posted [links](#) covering a variety of subjects under the resources page of our web site at mdareserves.com.

Purpose. The purpose of this Replacement Reserve Study is to provide Spring Breeze Community Association (hereinafter called the Association) with an inventory of the common community facilities and infrastructure components that require periodic replacement. The Study includes a general view of the condition of these items and an effective financial plan to fund projected periodic replacements.

- **Inventory of Items Owned by the Association.** Section B lists the Projected Replacements of the commonly owned items that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about excluded items, which are items whose replacements are not scheduled for funding from Replacement Reserves.
- **Condition of Items Owned by the Association.** Section B includes our estimates of the normal economic life and the remaining economic life for the projected replacements. Section C provides a year-by-year listing of the projected replacements. Section D provides additional detail for items that are unique or deserving of attention because of their condition or the manner in which they have been treated in this study.
- **Financial Plan.** The Association has a fiduciary responsibility to protect the appearance, value, and safety of the property and it is therefore essential the Association have a financial plan that provides funding for the projected replacements. In conformance with American Institute of Certified Public Accountant guidelines, Section A, Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by the Cash Flow Method. Section A, Replacement Reserve Analysis includes graphic and tabular presentations of the Association's current funding and the recommended funding based on the Cash Flow Method. An Executive Summary of these calculations is provided on Page A1. The alternative Component Method of funding is provided in the Appendix.

Basis. The data contained in this Replacement Reserve Study is based upon the following:

- The Request for Proposal submitted and executed by the Association.
- Miller - Dodson performed a visual evaluation on October 8, 2019 to determine a remaining useful life and replacement cost for the commonly owned elements of this facility.
- This study contains additional recommendations to address inflation for the Cash Flow Method only. For this recommendation, Miller - Dodson uses the Producers Price Index (PPI), which gauges inflation in manufacturing and construction. Please see page A5 for further details.

Current Funding. This reserve study has been prepared for Fiscal Year 2020 covering the period from January 1, 2020 to December 31, 2020. The Replacement Reserves on deposit as of January 1, 2020 are reported to be \$60,000.00. The planned contribution for the fiscal year is \$8,037.00.

The balance and contribution figures have been supplied by the managing agent and confirmation or audit of these figures is beyond the scope of the study. For the purposes of this study, it is assumed that the annual contribution will be deposited at the end of each month.

Acknowledgement. Miller - Dodson Associates would like to acknowledge the assistance and input of the Community Manager, Mr. Don Gentry, who provided very helpful insight into the current operations of the property.

Analyst's Credentials. Mr. Harvey "Sonny" Mosier has a degree in Business Administration and over 40 years' experience in project design, contract administration, and inspection of public and private facilities. As a consultant, Mr. Mosier has completed multiple facilities studies, life cycle cost studies, and analyses for repair versus replacement of facilities and systems. He is currently a Reserve Specialist for Miller - Dodson Associates.

Respectfully submitted,

millerdodson

Capital Reserve Consultants

Sonny Mosier

Harvey "Sonny" Mosier, RS
Reserve Specialist

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EXECUTIVE SUMMARY

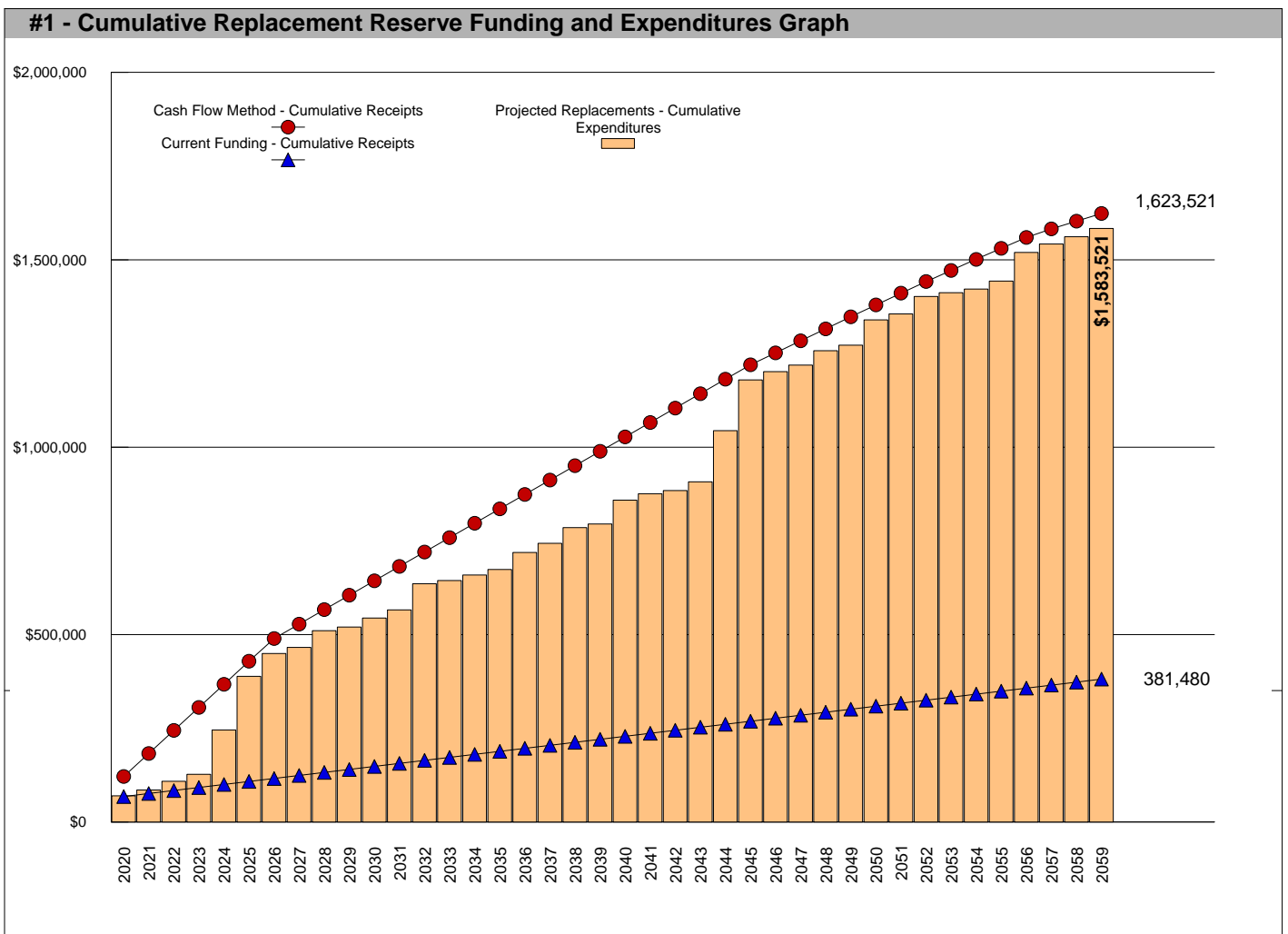
The Spring Breeze Community Association Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 36 Projected Replacements identified in the Replacement Reserve Inventory.

\$61,490 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2020

\$39.12 Per unit (average), minimum monthly funding of Replacement Reserves

We recommend the Association adopt a Replacement Reserve Funding Plan based on the annual funding recommendation above. Inflation adjusted funding for subsequent years is shown on Page A5.

Spring Breeze Community Association reports a Starting Balance of \$60,000 and Annual Funding totaling \$8,037. Current funding is inadequate to fund the \$1,583,521 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period. See Page A3 for a more detailed evaluation.



The Current Funding Objective as calculated by the Component Method (Fully Funded) is \$265,134 making the reserve account 22.6% funded. See the Appendix for more information on this method.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Spring Breeze Community Association Replacement Reserve Analysis calculations of recommended funding of Replacement Reserves by the Cash Flow Method and the evaluation of the Current Funding are based upon the same Study Year, Study Period, Beginning Balance, Replacement Reserve Inventory and Level of Service.

2020 | STUDY YEAR

The Association reports that their accounting year begins on January 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on January 1, 2020.

40 Years | STUDY PERIOD

The Replacement Reserve Analysis evaluates the funding of Replacement Reserves over a 40-year Study Period.

\$60,000 | STARTING BALANCE

The Association reports Replacement Reserves on Deposit totaling \$60,000 at the start of the Study Year.

Level One | LEVEL OF SERVICE

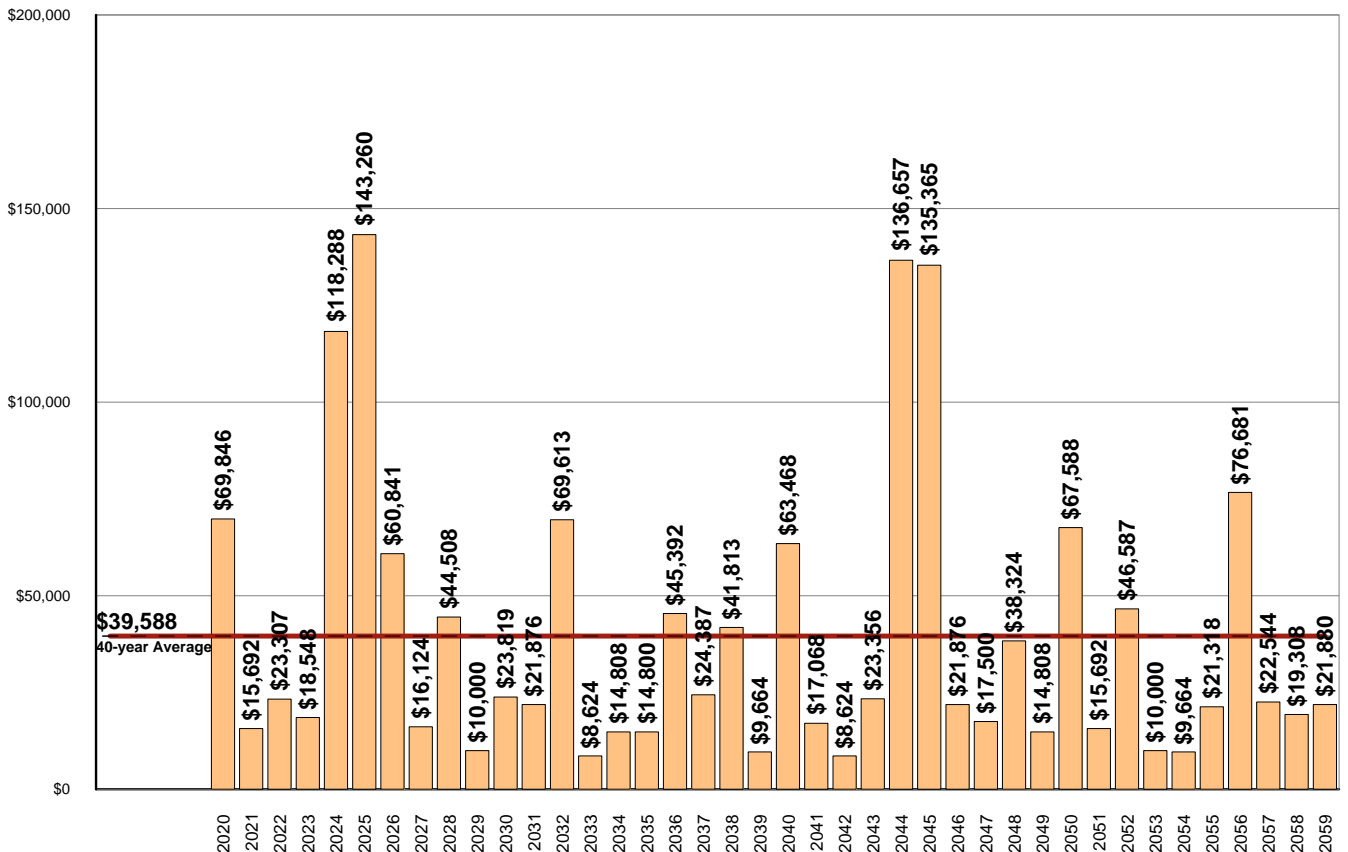
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level One Study, as defined by the Community Associations Institute (CAI).

\$1,583,521 | REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS

The Spring Breeze Community Association Replacement Reserve Inventory identifies 36 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$1,583,521 over the 40-year Study Period. The Projected Replacements are divided into 10 major categories starting on Page B3. Pages B1-B2 provide detailed information on the Replacement Reserve Inventory.

#2 - Annual Expenditures for Projected Replacements Graph

This graph shows annual expenditures for Projected Replacements over the 40-year Study Period. The red line shows the average annual expenditure of \$39,588. Section C provides a year by year Calendar of these expenditures.



UPDATING

UPDATING OF THE FUNDING PLAN

The Association has a responsibility to review the Funding Plan annually. The review should include a comparison and evaluation of actual reserve funding with recommended levels shown on Page A4 and A5. The Projected Replacements listed on Page C2 should be compared with any replacements accomplished and funded from Replacement Reserves. Discrepancies should be evaluated and if necessary, the Reserve Study should be updated or a new study commissioned. We recommend annual increases in replacement reserve funding to account for the impact of inflation. Inflation Adjusted Funding is discussed on Page A5.

UPDATING OF THE REPLACEMENT RESERVE STUDY

At a minimum, the Replacement Reserve Study should be professionally updated every three to five years or after completion of a major replacement project. Updating should also be considered if during the annual review of the Funding Plan, discrepancies are noted between projected and actual reserve funding or replacement costs. Updating may also be necessary if there is a meaningful discrepancy between the actual inflation rate and the inflation rate used for the Inflation Adjusted Funding of Replacement Reserves on Page A5.

ANNUAL EXPENDITURES AND CURRENT FUNDING

The annual expenditures that comprise the \$1,583,521 of Projected Expenditures over the 40-year Study Period and the impact of the Association continuing to fund Replacement Reserves at the current level are detailed in Table 3.

#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 40										
Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Starting Balance	\$60,000									
Projected Replacements	(\$69,846)	(\$15,692)	(\$23,307)	(\$18,548)	(\$118,288)	(\$143,260)	(\$60,841)	(\$16,124)	(\$44,508)	(\$10,000)
Annual Deposit	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037
End of Year Balance	(\$1,809)	(\$9,464)	(\$24,735)	(\$35,246)	(\$145,497)	(\$280,719)	(\$333,523)	(\$341,610)	(\$378,082)	(\$380,045)
Cumulative Expenditures	(\$69,846)	(\$85,538)	(\$108,846)	(\$127,394)	(\$245,682)	(\$388,941)	(\$449,782)	(\$465,906)	(\$510,415)	(\$520,415)
Cumulative Receipts	\$68,037	\$76,074	\$84,111	\$92,148	\$100,185	\$108,222	\$116,259	\$124,296	\$132,333	\$140,370
Year	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Projected Replacements	(\$23,819)	(\$21,876)	(\$69,613)	(\$8,624)	(\$14,808)	(\$14,800)	(\$45,392)	(\$24,387)	(\$41,813)	(\$9,664)
Annual Deposit	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037
End of Year Balance	(\$395,827)	(\$409,666)	(\$471,242)	(\$471,829)	(\$478,600)	(\$485,363)	(\$522,718)	(\$539,068)	(\$572,844)	(\$574,471)
Cumulative Expenditures	(\$544,234)	(\$566,110)	(\$635,723)	(\$644,347)	(\$659,155)	(\$673,955)	(\$719,347)	(\$743,734)	(\$785,547)	(\$795,211)
Cumulative Receipts	\$148,407	\$156,444	\$164,481	\$172,518	\$180,555	\$188,592	\$196,629	\$204,666	\$212,703	\$220,740
Year	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Projected Replacements	(\$63,468)	(\$17,068)	(\$8,624)	(\$23,356)	(\$136,657)	(\$135,365)	(\$21,876)	(\$17,500)	(\$38,324)	(\$14,808)
Annual Deposit	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037
End of Year Balance	(\$629,902)	(\$638,933)	(\$639,520)	(\$654,839)	(\$783,460)	(\$910,788)	(\$924,627)	(\$934,090)	(\$964,377)	(\$971,148)
Cumulative Expenditures	(\$858,679)	(\$875,747)	(\$884,371)	(\$907,727)	(\$1,044,385)	(\$1,179,750)	(\$1,201,626)	(\$1,219,126)	(\$1,257,450)	(\$1,272,258)
Cumulative Receipts	\$228,777	\$236,814	\$244,851	\$252,888	\$260,925	\$268,962	\$276,999	\$285,036	\$293,073	\$301,110
Year	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059
Projected Replacements	(\$67,588)	(\$15,692)	(\$46,587)	(\$10,000)	(\$9,664)	(\$21,318)	(\$76,681)	(\$22,544)	(\$19,308)	(\$21,880)
Annual Deposit	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037	\$8,037
End of Year Balance	(\$1,030,700)	(\$1,038,355)	(\$1,076,905)	(\$1,078,868)	(\$1,080,495)	(\$1,093,776)	(\$1,162,420)	(\$1,176,927)	(\$1,188,198)	(\$1,202,041)
Cumulative Expenditures	(\$1,339,847)	(\$1,355,539)	(\$1,402,126)	(\$1,412,126)	(\$1,421,790)	(\$1,443,108)	(\$1,519,789)	(\$1,542,333)	(\$1,561,641)	(\$1,583,521)
Cumulative Receipts	\$309,147	\$317,184	\$325,221	\$333,258	\$341,295	\$349,332	\$357,369	\$365,406	\$373,443	\$381,480

EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of \$60,000 & annual funding of \$8,037), is done in today's dollars with no adjustments for inflation or interest earned on Replacement Reserves. The evaluation assumes Replacement Reserves will only be used for the 36 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$8,037 throughout the 40-year Study Period.

Annual Funding of \$8,037 is approximately 13 percent of the \$61,490 recommended Annual Funding calculated by the Cash Flow Method for 2020, the Study Year.

Evaluation of the 36 Projected Replacements calculates an average annual expenditure over the next 40 years of \$39,588. Annual funding of \$8,037 is 20 percent of the average annual expenditure.

Our calculations identify funding shortfalls in 40 years of the Study Period with the initial shortfall in 2020. The largest shortfall, \$-1,202,041, occurs in 2059. All shortfalls can be seen and evaluated in Table 3 above.

In summary, Current Funding as reported by the Association and shown above, does not provide adequate funding for the \$1,583,521 of Projected Replacements scheduled in the Replacement Reserve Inventory over the Study Period.

CASH FLOW METHOD FUNDING

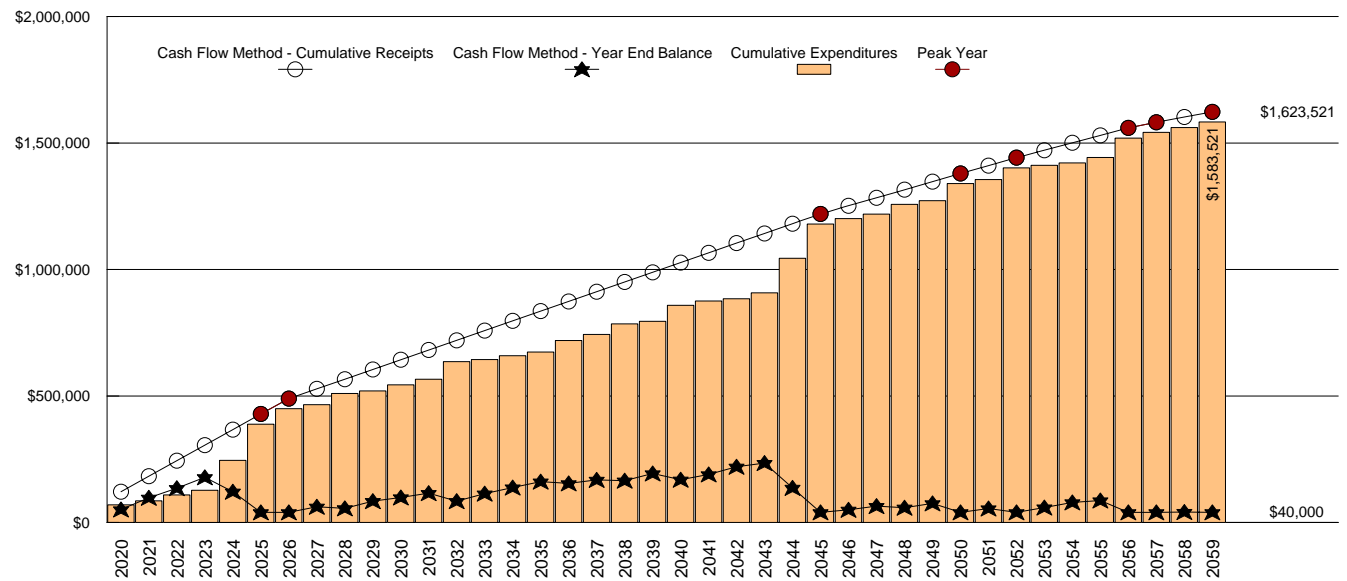
\$61,490 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2020

\$39.12 Per unit (average), minimum monthly funding of Replacement Reserves

Recommended Replacement Reserve Funding has been calculated using the Cash Flow Method (also called the Straight Line or Threshold Method). This method calculates a constant annual funding between peaks in cumulative expenditures, while maintaining a Minimum Balance (threshold) in the Peak Years.

- **Peak Years.** The First Peak Year occurs in 2025 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$388,941 of replacements from 2020 to 2025. Recommended funding declines from \$61,490 in 2025 to \$60,841 in 2026. Peak Years are identified in Chart 4 and Table 5.
- **Minimum Balance.** The calculations assume a Minimum Balance of \$40,000 in Replacement Reserves. This is approx. 12 months of average expenditures based on the \$39,588, 40-year average annual expenditure.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for \$1,583,521 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2059 and in 2059, the end of year balance will always be the Minimum Balance.

#4 - Cash Flow Method - Graph of Cumulative Receipts and Expenditures - Years 1 through 40



#5 - Cash Flow Method - Table of Receipts & Expenditures - Years 1 through 40

Year	2020	2021	2022	2023	2024	1st Peak - 2025	2nd Peak - 2026	2027	2028	2029
Starting Balance	\$60,000									
Projected Replacements	(\$69,846)	(\$15,692)	(\$23,307)	(\$18,548)	(\$118,288)	(\$143,260)	(\$60,841)	(\$16,124)	(\$44,508)	(\$10,000)
Annual Deposit	\$61,490	\$61,490	\$61,490	\$61,490	\$61,490	\$61,490	\$60,841	\$38,419	\$38,419	\$38,419
End of Year Balance	\$51,644	\$97,442	\$135,625	\$178,567	\$121,769	\$40,000	\$40,000	\$62,295	\$56,206	\$84,626
Cumulative Expenditures	\$69,846	\$85,538	\$108,846	\$127,394	\$245,682	\$388,941	\$449,782	\$465,906	\$510,415	\$520,415
Cumulative Receipts	\$121,490	\$182,980	\$244,471	\$305,961	\$367,451	\$428,941	\$489,782	\$528,202	\$566,621	\$605,040
Year	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Projected Replacements	(\$23,819)	(\$21,876)	(\$69,613)	(\$8,624)	(\$14,808)	(\$14,800)	(\$45,392)	(\$24,387)	(\$41,813)	(\$9,664)
Annual Deposit	\$38,419	\$38,419	\$38,419	\$38,419	\$38,419	\$38,419	\$38,419	\$38,419	\$38,419	\$38,419
End of Year Balance	\$99,226	\$115,769	\$84,575	\$114,371	\$137,982	\$161,602	\$154,629	\$168,661	\$165,267	\$194,022
Cumulative Expenditures	(\$544,234)	(\$566,110)	(\$635,723)	(\$644,347)	(\$659,155)	(\$673,955)	(\$719,347)	(\$743,734)	(\$785,547)	(\$795,211)
Cumulative Receipts	\$643,460	\$681,879	\$720,298	\$758,718	\$797,137	\$835,556	\$873,976	\$912,395	\$950,815	\$989,234
Year	2040	2041	2042	2043	2044	3rd Peak - 2045	2046	2047	2048	2049
Projected Replacements	(\$63,468)	(\$17,068)	(\$8,624)	(\$23,356)	(\$136,657)	(\$135,365)	(\$21,876)	(\$17,500)	(\$38,324)	(\$14,808)
Annual Deposit	\$38,419	\$38,419	\$38,419	\$38,419	\$38,419	\$38,419	\$32,019	\$32,019	\$32,019	\$32,019
End of Year Balance	\$168,974	\$190,325	\$220,121	\$235,184	\$136,946	\$40,000	\$50,143	\$64,663	\$58,358	\$75,569
Cumulative Expenditures	(\$858,679)	(\$875,747)	(\$884,371)	(\$907,727)	(\$1,044,385)	(\$1,179,750)	(\$1,201,626)	(\$1,219,126)	(\$1,257,450)	(\$1,272,258)
Cumulative Receipts	\$1,027,653	\$1,066,073	\$1,104,492	\$1,142,911	\$1,181,331	\$1,219,750	\$1,251,769	\$1,283,789	\$1,315,808	\$1,347,827
Year	2050	2051	5th Peak - 2052	2053	2054	2055	6th Peak - 2056	7th Peak - 2057	2058	8th Peak - 2059
Projected Replacements	(\$67,588)	(\$15,692)	(\$46,587)	(\$10,000)	(\$9,664)	(\$21,318)	(\$76,681)	(\$22,544)	(\$19,308)	(\$21,880)
Annual Deposit	\$32,019	\$31,140	\$31,140	\$29,416	\$29,416	\$29,416	\$29,416	\$22,544	\$20,594	\$20,594
End of Year Balance	\$40,000	\$55,448	\$40,000	\$59,416	\$79,166	\$87,266	\$40,000	\$40,000	\$41,286	\$40,000
Cumulative Expenditures	(\$1,339,847)	(\$1,355,539)	(\$1,402,126)	(\$1,412,126)	(\$1,421,790)	(\$1,443,108)	(\$1,519,789)	(\$1,542,333)	(\$1,561,641)	(\$1,583,521)
Cumulative Receipts	\$1,379,847	\$1,410,986	\$1,442,126	\$1,471,542	\$1,500,957	\$1,530,373	\$1,559,789	\$1,582,333	\$1,602,927	\$1,623,521

INFLATION ADJUSTED FUNDING

The Cash Flow Method calculations on Page A4 have been done in today's dollars with no adjustment for inflation. At Miller + Dodson, we believe that long-term inflation forecasting is effective at demonstrating the power of compounding, not at calculating appropriate funding levels for Replacement Reserves. We have developed this proprietary model to estimate the short-term impact of inflation on Replacement Reserve funding.

\$61,490 2020 - CASH FLOW METHOD RECOMMENDED FUNDING

The 2020 Study Year calculations have been made using current replacement costs (see Page B2), modified by the Analyst for any project specific conditions.

\$62,958 2021 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2021 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$51,644 on January 1, 2021.
- All 2020 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$69,846.
- Construction Cost Inflation of 2.30 percent in 2020.

The \$62,958 inflation adjusted funding in 2021 is a 2.39 percent increase over the non-inflation adjusted 2021 funding of \$61,490.

\$64,993 2022 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2022 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$98,549 on January 1, 2022.
- All 2021 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$16,053.
- Construction Cost Inflation of 2.30 percent in 2021.

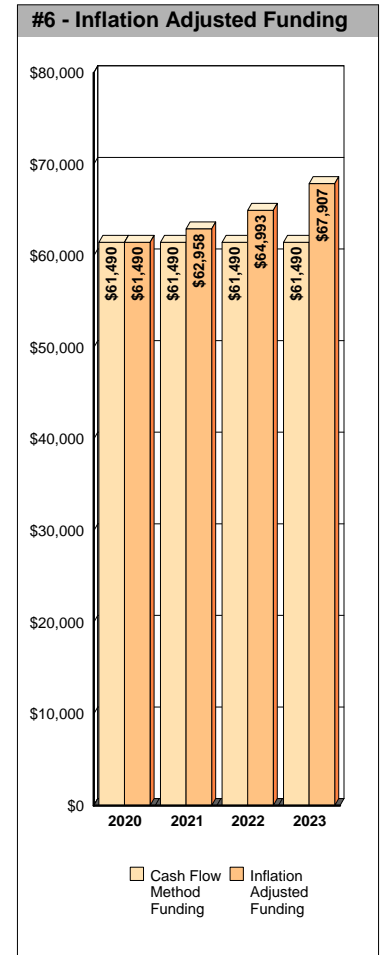
The \$64,993 inflation adjusted funding in 2022 is a 5.70 percent increase over the non-inflation adjusted 2022 funding of \$61,490.

\$67,907 2023 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2023 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$139,150 on January 1, 2023.
- All 2022 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$24,392.
- Construction Cost Inflation of 2.30 percent in 2022.

The \$67,907 inflation adjusted funding in 2023 is a 10.44 percent increase over the non-inflation adjusted funding of \$61,490.



YEAR FIVE & BEYOND

The inflation adjusted funding calculations outlined above are not intended to be a substitute for periodic evaluation of common elements by an experienced Reserve Analyst. Industry Standards, lender requirements, and many state and local statutes require a Replacement Reserve Study be professionally updated every 3 to 5 years.

INFLATION ADJUSTMENT

Prior to approving a budget based upon the 2021, 2022 and 2023 inflation adjusted funding calculations above, the 2.30 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percent), contact Miller Dodson + Associates prior to using the Inflation Adjusted Funding.

INTEREST ON RESERVES

The recommended funding calculations do not account for interest earned on Replacement Reserves.

In 2020, based on a 1.00 percent interest rate, we estimate the Association may earn \$558 on an average balance of \$55,822, \$751 on an average balance of \$75,096 in 2021, and \$1,188 on \$118,849 in 2022. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2020 funding from \$61,490 to \$60,932 (a 0.91 percent reduction), \$62,958 to \$62,207 in 2021 (a 1.19 percent reduction), and \$64,993 to \$63,804 in 2022 (a 1.83 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- Spring Breeze Community Association has 131 units. The type of property is a Community Association.
- The Cash Flow Method calculates the minimum annual funding necessary to prevent Replacement Reserves from dropping below the Minimum Balance. Failure to fund at least the recommended levels may result in funding not being available for the Projected Replacements listed in the Replacement Reserve Inventory.
- The accuracy of the Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 36 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B1.

REPLACEMENT RESERVE INVENTORY GENERAL INFORMATION

Spring Breeze Community Association - Replacement Reserve Inventory identifies 79 items. Two types of items are identified, Projected Replacements and Excluded Items:

- **PROJECTED REPLACEMENTS.** 36 of the items are Projected Replacements and the periodic replacements of these items are scheduled for funding from Replacement Reserves. The Projected Replacements have an estimated one-time replacement cost of \$394,683. Replacements totaling \$1,583,521 are scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

Projected Replacements are the replacement of commonly-owned physical assets that require periodic replacement and whose replacement is to be funded from Replacement Reserves.

- **EXCLUDED ITEMS.** 43 of the items are Excluded Items, and expenditures for these items are NOT scheduled for funding from Replacement Reserves. The accuracy of the calculations made in the Replacement Reserve Analysis is dependent on expenditures NOT being made for Excluded Items. The Excluded Items are listed in the Replacement Reserve Inventory to identify specific items and categories of items that are not to be funded from Replacement Reserves. There are multiple categories of items that are typically excluded from funding by Replacement Reserves, including but not limited to:

Tax Code. The United States Tax Code grants very favorable tax status to Replacement Reserves, conditioned on expenditures being made within certain guidelines. These guidelines typically exclude maintenance activities, minor repairs and capital improvements.

Value. Items with a replacement cost of less than \$1,000 and/or a normal economic life of less than 3 years are typically excluded from funding from Replacement Reserves. This exclusion should reflect Association policy on the administration of Replacement Reserves. If the Association has selected an alternative level, it will be noted in the Replacement Reserve Inventory - General Comments on Page B2.

Long-lived Items. Items that when properly maintained, can be assumed to have a life equal to the property as a whole, are typically excluded from the Replacement Reserve Inventory.

Unit improvements. Items owned by a single unit and where the items serve a single unit are generally assumed to be the responsibility of that unit, not the Association.

Other non-common improvements. Items owned by the local government, public and private utility companies, the United States Postal Service, Master Associations, state and local highway authorities, etc., may be installed on property that is owned by the Association. These types of items are generally not the responsibility of the Association and are excluded from the Replacement Reserve Inventory.

The rationale for the exclusion of an item from funding by Replacement Reserves is discussed in more detail in the 'Comments' sections of the Section B - Replacement Reserve Inventory.

- **CATEGORIES.** The 79 items included in the Spring Breeze Community Association Replacement Reserve Inventory are divided into 10 major categories. Each category is printed on a separate page, Pages B3 to B11.
- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level One Study - Full Service, as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

A Level I - Full Service Reserve Study includes the computation of complete component inventory information regarding commonly owned components provided by the Association, quantities derived from field measurements and/or quantity takeoffs from to-scale engineering drawings that may be made available. The condition of all components is ascertained from a visual inspection of each component by the analyst. The remaining economic life and the value of the components are provided based on these observations and the funding status and funding plan are then derived from analysis of this data.

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- **INVENTORY DATA.** Each of the 36 Projected Replacements listed in the Replacement Reserve Inventory includes the following data:

Item Number. The Item Number is assigned sequentially and is intended for identification purposes only.

Item Description. We have identified each item included in the Inventory. Additional information may be included in the Comments section at the bottom of each page of the Inventory.

Units. We have used standard abbreviations to identify the number of units including SF-square feet, LF-lineal feet, SY-square yard, LS-lump sum, EA-each, and PR-pair. Non-standard abbreviations are noted in the Comments section at the bottom of the page.

Number of Units. The methods used to develop the quantities are discussed in "Level of Service" above.

Unit Replacement Cost. We use four sources to develop the unit cost data shown in the Inventory; actual replacement cost data provided by the client, information provided by local contractors and suppliers, industry standard estimating manuals, and a cost database we have developed based upon our detailed interviews with contractors and service providers who are specialists in their respective lines of work.

Normal Economic Life (Yrs). The number of years that a new and properly installed item should be expected to remain in service.

Remaining Economic Life (Yrs). The estimated number of years before an item will need to be replaced. In "normal" conditions, this could be calculated by subtracting the age of the item from the Normal Economic Life of the item, but only rarely do physical assets age "normally". Some items may have longer or shorter lives depending on many factors such as environment, initial quality of the item, maintenance, etc.

Total Replacement Cost. This is calculated by multiplying the Unit Replacement Cost by the Number of Units.

Each of the 43 Excluded Items includes the Item Description, Units, and Number of Units. Many of the Excluded Items are listed as a 'Lump Sum' with a quantity of 1. For the Excluded Items, this indicates that all of the items identified by the 'Item Description' are excluded from funding by Replacement Reserves.

- **REVIEW OF EXPENDITURES.** This Replacement Reserve Study should be reviewed by an accounting professional representing the Association prior to implementation.
- **PARTIAL FUNDING.** Items may have been included in the Replacement Reserve Inventory at less than 100 percent of their full quantity and/or replacement cost. This is done on items that will never be replaced in their entirety, but which may require periodic replacements over an extended period of time. The assumptions that provide the basis for any partial funding are noted in the Comments section.
- **REMAINING ECONOMIC LIFE GREATER THAN 40 YEARS.** The calculations do not include funding for initial replacements beyond 40 years. These replacements are included in this Study for tracking and evaluation. They should be included for funding in future Studies, when they enter the 40-year window.

SITE COMPONENTS (ES) - Early Spring // (SS)- Sea Shadow
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
1	ES - Asphalt pavement, mill & overlay	sf	67,310	\$1.68	20	5	\$113,081
2	ES - Asphalt pavement, seal coat	sf	67,310	\$0.22	3	2	\$14,808
3	SS - Asphalt pavement, mill & overlay	sf	39,200	\$1.68	20	4	\$65,856
4	SS - Asphalt pavement, seal coat	sf	39,200	\$0.22	3	1	\$8,624
5	Asphalt path, overlay (33.3%)	sf	1,520	\$4.65	5	1	\$7,068
6	Concrete flatwork (6%)	sf	748	\$10.85	6	none	\$8,116
7	Concrete curb, barrier (6%)	ft	209	\$35.50	6	none	\$7,420
8	Concrete mono. curb & sidewalk (6%)	ft	790	\$18.20	6	none	\$14,378
9	Concrete access drive swale (20%)	ft	174	\$28.50	20	5	\$4,959
10	Mailbox, cluster (12 unit)	ea	3	\$2,140.00	35	2	\$6,420
11	Mailbox, cluster (8 unit)	ea	6	\$1,980.00	35	4	\$11,880
12	Mailbox, cluster (8 unit)	ea	7	\$1,980.00	35	6	\$13,860
13	Entrance monument, carved wood	ea	1	\$740.00	20	3	\$740
14	Storm water drain piping and basins	ls	1	\$7,500.00	10	7	\$7,500
SITE COMPONENTS (ES) - Early Spring // (SS)- Sea Shadow - Replacement Costs - Subtotal							\$284,709

SITE COMPONENTS (ES) - Early Spring // (SS)- Sea Shadow
COMMENTS

- We have assumed that the Association will replace the asphalt pavement by the installation of a 2 inch thick overlay. The pavement will need to be milled prior to the installation of the overlay. Milling and the cost of minor repairs (5 to 10 percent of the total area) to the base materials and bearing soils beneath the pavement are included in the cost shown above.
- Asphalt pavement, seal coat includes allowance for pavement markings.

SITE COMPONENTS (cont.)

PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
15	Wood ped. bridge,PTL structure	ls	120	\$34.50	30	20	\$4,140
16	Wood ped. bridge, PTL railing	ls	60	\$28.50	15	5	\$1,710
17	Wood ped. bridge, composite decking	ls	120	\$14.90	20	15	\$1,788
18	Site steps - 6"X6" PTL timber steps	sf	200	\$28.45	20	5	\$5,690
19	Site steps -6X6 PTL borders w/ pavers	sf	340	\$34.50	20	10	\$11,730
20	Site steps -6X6 PTL borders w/ slate	sf	180	\$37.60	20	none	\$6,768
21	Site steps -Structure w/composite clad	ls	1	\$2,600.00	40	38	\$2,600
22	Site steps - Composite railing	ls	1	\$900.00	20	18	\$900
23	Site steps -Composite decking & tread	ls	1	\$1,000.00	20	18	\$1,000
24	Tree replacement (allowance)	ls	1	\$10,000.00	3	3	\$10,000
25	Retaining Wall - 6" X 6" PTL (20%)	sf	750	\$39.60	4	none	\$29,700
26	Retaining Wall - 4" X 4" PTL	sf	320	\$24.40	20	3	\$7,808
27	Retaining Wall - 3" X 5" PTL	sf	110	\$18.90	15	2	\$2,079
28	Retaining Wall - 5" X 7" railroad tie	ft	30	\$39.60	20	4	\$1,188
29	Retaining Wall - 2" X 10" PTL w/ cap	ft	160	\$6.50	15	4	\$1,040
30	Retaining Wall - seg.block, reset (40%)	sf	312	\$40.00	40	30	\$12,480

SITE COMPONENTS (cont.) - Replacement Costs - Subtotal \$100,621

SITE COMPONENTS (cont.)

COMMENTS

Empty comment box for additional notes.

SITE COMPONENTS (cont.)

PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
31	Fence - wood spit rail (50%)	ft	75	\$23.80	10	none	\$1,785
32	Fence - wood spit rail (50%)	ft	75	\$23.80	10	5	\$1,785
33	Fence - Wood board rail (50%)	ft	55	\$22.30	10	none	\$1,227
34	Fence - Wood board rail (50%)	ft	55	\$22.30	10	5	\$1,227
35	Pavers - replace	sf	188	\$15.30	40	20	\$2,876
36	Pavers - reset (33.3%)	sf	63	\$7.20	10	none	\$454

SITE COMPONENTS (cont.) - Replacement Costs - Subtotal \$9,353

SITE COMPONENTS (cont.)

COMMENTS

VALUATION EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Site lighting fixtures	ls	1				EXCLUDED

VALUATION EXCLUSIONS

COMMENTS

- Valuation Exclusions. For ease of administration of the Replacement Reserves and to reflect accurately how Replacement Reserves are administered, items with a dollar value less than \$1,000.00 have not been scheduled for funding from Replacement Reserves. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.

- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

LONG-LIFE EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Segmental retaining walls	ls	1				EXCLUDED
	Exterior brick veneer	ls	1				EXCLUDED
	Building foundation(s)	ls	1				EXCLUDED
	Concrete floor slabs (interior)	ls	1				EXCLUDED
	Wall, floor, & roof structure	ls	1				EXCLUDED

LONG-LIFE EXCLUSIONS

COMMENTS

- Long Life Exclusions. Components that when properly maintained, can be assumed to have a life equal to the property as a whole, are normally excluded from the Replacement Reserve Inventory. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- Exterior masonry is generally assumed to have an unlimited economic life but periodic repointing is required and we have included this for funding in the Replacement Reserve Inventory.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

UNIT IMPROVEMENTS EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Domestic water pipes serving one unit	ls	1				EXCLUDED
	Sanitary sewers serving one unit	ls	1				EXCLUDED
	Electrical wiring serving one unit	ls	1				EXCLUDED
	Cable TV service serving one unit	ls	1				EXCLUDED
	Telephone service serving one unit	ls	1				EXCLUDED
	Gas service serving one unit	ls	1				EXCLUDED
	Sidewalk on an individual lot	ls	1				EXCLUDED
	Stairs on an individual lot	ls	1				EXCLUDED
	Fence on an individual lot	ls	1				EXCLUDED
	Unit exterior	ls	1				EXCLUDED
	Unit windows	ls	1				EXCLUDED
	Unit doors	ls	1				EXCLUDED
	Unit skylights	ls	1				EXCLUDED
	Unit deck, patio, and/or balcony	ls	1				EXCLUDED
	Unit HVAC system	ls	1				EXCLUDED

UNIT IMPROVEMENTS EXCLUSIONS

COMMENTS

- Unit improvement Exclusions. We understand that the elements of the project that relate to a single unit are the responsibility of that unit owner. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

UTILITY EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Primary electric feeds	ls	1				EXCLUDED
	Electric transformers	ls	1				EXCLUDED
	Cable TV systems and structures	ls	1				EXCLUDED
	Telephone cables and structures	ls	1				EXCLUDED
	Site lighting	ls	1				EXCLUDED
	Gas mains and meters	ls	1				EXCLUDED
	Water mains and meters	ls	1				EXCLUDED
	Sanitary sewers	ls	1				EXCLUDED

UTILITY EXCLUSIONS

COMMENTS

- Utility Exclusions. Many improvements owned by utility companies are on property owned by the Association. We have assumed that repair, maintenance, and replacements of these components will be done at the expense of the appropriate utility company. Examples of items excluded from funding Replacement Reserves by this standard are listed above.

- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

MAINTENANCE AND REPAIR EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Cleaning of asphalt pavement	ls	1				EXCLUDED
	Painting of curbs	ls	1				EXCLUDED
	Numbering of parking spaces	ls	1				EXCLUDED
	Landscaping and site grading	ls	1				EXCLUDED
	Exterior painting	ls	1				EXCLUDED
	Interior painting	ls	1				EXCLUDED
	Repair services	ls	1				EXCLUDED
	Partial replacements	ls	1				EXCLUDED
	Capital improvements	ls	1				EXCLUDED

MAINTENANCE AND REPAIR EXCLUSIONS

COMMENTS

- Maintenance activities, one-time-only repairs, and capital improvements. These activities are NOT appropriately funded from Replacement Reserves. The inclusion of such component in the Replacement Reserve Inventory could jeopardize the special tax status of ALL Replacement Reserves, exposing the Association to significant tax liabilities. We recommend that the Board of Directors discuss these exclusions and Revenue Ruling 75-370 with a Certified Public Accountant.
- Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

GOVERNMENT EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Government, roadways & parking	ls	1				EXCLUDED
	Government, sidewalks & curbs	ls	1				EXCLUDED
	Government, lighting	ls	1				EXCLUDED
	Government, stormwater mgmt.	ls	1				EXCLUDED
	Government, mailboxes	ls	1				EXCLUDED

GOVERNMENT EXCLUSIONS

COMMENTS

- Government Exclusions. We have assumed that some of the improvements installed on property owned by the Association will be maintained by the state, county, or local government, or other association or other responsible entity. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.
- Excluded right-of-ways, including LIST ROADS, and adjacent properties.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

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PROJECTED ANNUAL REPLACEMENTS GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 36 Projected Replacements in the Spring Breeze Community Association Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C2.

REPLACEMENT RESERVE ANALYSIS AND INVENTORY POLICIES, PROCEDURES, AND ADMINISTRATION

- **REVISIONS.** Revisions will be made to the Replacement Reserve Analysis and Replacement Reserve Inventory in accordance with the written instructions of the Board of Directors. No additional charge is incurred for the first revision, if requested in writing within three months of the date of the Replacement Reserve Study. It is our policy to provide revisions in electronic (Adobe PDF) format only.
- **TAX CODE.** The United States Tax Code grants favorable tax status to a common interest development (CID) meeting certain guidelines for their Replacement Reserve. If a CID files their taxes as a 'Corporation' on Form 1120 (IRC Section 277), these guidelines typically require maintenance activities, partial replacements, minor replacements, capital improvements, and one-time only replacements to be excluded from Reserves. A CID cannot co-mingle planning for maintenance activities with capital replacement activities in the Reserves (Revenue Ruling 75-370). Funds for maintenance activities and capital replacements activities must be held in separate accounts. If a CID files taxes as an "Exempt Homeowners Association" using Form 1120H (IRC Section 528), the CID does not have to segregate these activities. However, because the CID may elect to change their method of filing from year to year within the Study Period, we advise using the more restrictive approach. We further recommend that the CID consult with their Accountant and consider creating separate and independent accounts and reserves for large maintenance items, such as painting.
- **CONFLICT OF INTEREST.** Neither Miller - Dodson Associates nor the Reserve Analyst has any prior or existing relationship with this Association which would represent a real or perceived conflict of interest.
- **RELIANCE ON DATA PROVIDED BY THE CLIENT.** Information provided by an official representative of the Association regarding financial, physical conditions, quality, or historical issues is deemed reliable.
- **INTENT.** This Replacement Reserve Study is a reflection of the information provided by the Association and the visual evaluations of the Analyst. It has been prepared for the sole use of the Association and is not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.
- **PREVIOUS REPLACEMENTS.** Information provided to Miller - Dodson Associates regarding prior replacements is considered to be accurate and reliable. Our visual evaluation is not a project audit or quality inspection.
- **EXPERIENCE WITH FUTURE REPLACEMENTS.** The Calendar of Annual Projected Replacements, lists replacements we have projected to occur over the next forty years, begins on Page C2. Actual experience in replacing the items may differ significantly from the cost estimates and time frames shown because of conditions beyond our control. These differences may be caused by maintenance practices, inflation, variations in pricing and market conditions, future technological developments, regulatory actions, acts of God, and luck. Some items may function normally during our visual evaluation and then fail without notice.
- **REVIEW OF THE REPLACEMENT RESERVE STUDY.** For this study to be effective, it should be reviewed by the Spring Breeze Community Association Board of Directors, those responsible for the management of the items included in the Replacement Reserve Inventory, and the accounting professionals employed by the Association.

PROJECTED REPLACEMENTS - YEARS ONE TO FIFTEEN

Item	FY 2020 - STUDY YEAR	\$
6	Concrete flatwork (6%)	\$8,116
7	Concrete curb, barrier (6%)	\$7,420
8	Concrete mono. curb & side	\$14,378
20	Site steps -6X6 PTL borders	\$6,768
25	Retaining Wall - 6" X 6" PTL	\$29,700
31	Fence - wood spit rail (50%)	\$1,785
33	Fence - Wood board rail (50)	\$1,227
36	Pavers - reset (33.3%)	\$454
Total Scheduled Replacements		\$69,846

Item	FY 2021 - YEAR 2	\$
4	SS - Asphalt pavement, sea	\$8,624
5	Asphalt path, overlay (33.3%)	\$7,068
Total Scheduled Replacements		\$15,692

Item	FY 2022 - YEAR 3	\$
2	ES - Asphalt pavement, sea	\$14,808
10	Mailbox, cluster (12 unit)	\$6,420
27	Retaining Wall - 3" X 5" PTL	\$2,079
Total Scheduled Replacements		\$23,307

Item	FY 2023 - YEAR 4	\$
13	Entrance monument, carved	\$740
24	Tree replacement (allowance)	\$10,000
26	Retaining Wall - 4" X 4" PTL	\$7,808
Total Scheduled Replacements		\$18,548

Item	FY 2024 - YEAR 5	\$
3	SS - Asphalt pavement, mill	\$65,856
4	SS - Asphalt pavement, sea	\$8,624
11	Mailbox, cluster (8 unit)	\$11,880
25	Retaining Wall - 6" X 6" PTL	\$29,700
28	Retaining Wall - 5" X 7" rail	\$1,188
29	Retaining Wall - 2" X 10" PT	\$1,040
Total Scheduled Replacements		\$118,288

Item	FY 2025 - YEAR 6	\$
1	ES - Asphalt pavement, mill	\$113,081
2	ES - Asphalt pavement, sea	\$14,808
9	Concrete access drive swalk	\$4,959
16	Wood ped. bridge, PTL rail	\$1,710
18	Site steps - 6"X6" PTL timbe	\$5,690
32	Fence - wood spit rail (50%)	\$1,785
34	Fence - Wood board rail (50	\$1,227
Total Scheduled Replacements		\$143,260

Item	FY 2026 - YEAR 7	\$
5	Asphalt path, overlay (33.3%)	\$7,068
6	Concrete flatwork (6%)	\$8,116
7	Concrete curb, barrier (6%)	\$7,420
8	Concrete mono. curb & side	\$14,378
12	Mailbox, cluster (8 unit)	\$13,860
24	Tree replacement (allowance)	\$10,000
Total Scheduled Replacements		\$60,841

Item	FY 2027 - YEAR 8	\$
4	SS - Asphalt pavement, sea	\$8,624
14	Storm water drain piping anc	\$7,500
Total Scheduled Replacements		\$16,124

Item	FY 2028 - YEAR 9	\$
2	ES - Asphalt pavement, sea	\$14,808
25	Retaining Wall - 6" X 6" PTL	\$29,700
Total Scheduled Replacements		\$44,508

Item	FY 2029 - YEAR 10	\$
24	Tree replacement (allowance)	\$10,000
Total Scheduled Replacements		\$10,000

Item	FY 2030 - YEAR 11	\$
4	SS - Asphalt pavement, sea	\$8,624
19	Site steps -6X6 PTL borders	\$11,730
31	Fence - wood spit rail (50%)	\$1,785
33	Fence - Wood board rail (50	\$1,227
36	Pavers - reset (33.3%)	\$454
Total Scheduled Replacements		\$23,819

Item	FY 2031 - YEAR 12	\$
2	ES - Asphalt pavement, sea	\$14,808
5	Asphalt path, overlay (33.3%)	\$7,068
Total Scheduled Replacements		\$21,876

Item	FY 2032 - YEAR 13	\$
6	Concrete flatwork (6%)	\$8,116
7	Concrete curb, barrier (6%)	\$7,420
8	Concrete mono. curb & side	\$14,378
24	Tree replacement (allowance)	\$10,000
25	Retaining Wall - 6" X 6" PTL	\$29,700
Total Scheduled Replacements		\$69,613

Item	FY 2033 - YEAR 14	\$
4	SS - Asphalt pavement, sea	\$8,624
Total Scheduled Replacements		\$8,624

Item	FY 2034 - YEAR 15	\$
2	ES - Asphalt pavement, sea	\$14,808
Total Scheduled Replacements		\$14,808

PROJECTED REPLACEMENTS - YEARS SIXTEEN TO THIRTY

Item	FY 2035 - YEAR 16	\$
17	Wood ped. bridge, composit	\$1,788
24	Tree replacement (allowanc	\$10,000
32	Fence - wood spit rail (50%)	\$1,785
34	Fence - Wood board rail (50	\$1,227
Total Scheduled Replacements		\$14,800

Item	FY 2036 - YEAR 17	\$
4	SS - Asphalt pavement, sea	\$8,624
5	Asphalt path, overlay (33.3%	\$7,068
25	Retaining Wall - 6" X 6" PTL	\$29,700
Total Scheduled Replacements		\$45,392

Item	FY 2037 - YEAR 18	\$
2	ES - Asphalt pavement, sea	\$14,808
14	Storm water drain piping anc	\$7,500
27	Retaining Wall - 3" X 5" PTL	\$2,079
Total Scheduled Replacements		\$24,387

Item	FY 2038 - YEAR 19	\$
6	Concrete flatwork (6%)	\$8,116
7	Concrete curb, barrier (6%)	\$7,420
8	Concrete mono. curb & side	\$14,378
22	Site steps - Composite railin	\$900
23	Site steps -Composite decki	\$1,000
24	Tree replacement (allowanc	\$10,000
Total Scheduled Replacements		\$41,813

Item	FY 2039 - YEAR 20	\$
4	SS - Asphalt pavement, sea	\$8,624
29	Retaining Wall - 2" X 10" PT	\$1,040
Total Scheduled Replacements		\$9,664

Item	FY 2040 - YEAR 21	\$
2	ES - Asphalt pavement, sea	\$14,808
15	Wood ped. bridge,PTL struc	\$4,140
16	Wood ped. bridge, PTL raili	\$1,710
20	Site steps -6X6 PTL borders	\$6,768
25	Retaining Wall - 6" X 6" PTL	\$29,700
31	Fence - wood spit rail (50%)	\$1,785
33	Fence - Wood board rail (50	\$1,227
35	Pavers - replace	\$2,876
36	Pavers - reset (33.3%)	\$454
Total Scheduled Replacements		\$63,468

Item	FY 2041 - YEAR 22	\$
5	Asphalt path, overlay (33.3%	\$7,068
24	Tree replacement (allowanc	\$10,000
Total Scheduled Replacements		\$17,068

Item	FY 2042 - YEAR 23	\$
4	SS - Asphalt pavement, sea	\$8,624
Total Scheduled Replacements		\$8,624

Item	FY 2043 - YEAR 24	\$
2	ES - Asphalt pavement, sea	\$14,808
13	Entrance monument, carved	\$740
26	Retaining Wall - 4" X 4" PTL	\$7,808
Total Scheduled Replacements		\$23,356

Item	FY 2044 - YEAR 25	\$
3	SS - Asphalt pavement, mill	\$65,856
6	Concrete flatwork (6%)	\$8,116
7	Concrete curb, barrier (6%)	\$7,420
8	Concrete mono. curb & side	\$14,378
24	Tree replacement (allowanc	\$10,000
25	Retaining Wall - 6" X 6" PTL	\$29,700
28	Retaining Wall - 5" X 7" railr	\$1,188
Total Scheduled Replacements		\$136,657

Item	FY 2045 - YEAR 26	\$
1	ES - Asphalt pavement, mill	\$113,081
4	SS - Asphalt pavement, sea	\$8,624
9	Concrete access drive swale	\$4,959
18	Site steps - 6"X6" PTL timbe	\$5,690
32	Fence - wood spit rail (50%)	\$1,785
34	Fence - Wood board rail (50	\$1,227
Total Scheduled Replacements		\$135,365

Item	FY 2046 - YEAR 27	\$
2	ES - Asphalt pavement, sea	\$14,808
5	Asphalt path, overlay (33.3%	\$7,068
Total Scheduled Replacements		\$21,876

Item	FY 2047 - YEAR 28	\$
14	Storm water drain piping anc	\$7,500
24	Tree replacement (allowanc	\$10,000
Total Scheduled Replacements		\$17,500

Item	FY 2048 - YEAR 29	\$
4	SS - Asphalt pavement, sea	\$8,624
25	Retaining Wall - 6" X 6" PTL	\$29,700
Total Scheduled Replacements		\$38,324

Item	FY 2049 - YEAR 30	\$
2	ES - Asphalt pavement, sea	\$14,808
Total Scheduled Replacements		\$14,808

PROJECTED REPLACEMENTS - YEARS THIRTY-ONE TO FORTY-FIVE

Item	FY 2050 - YEAR 31	\$
6	Concrete flatwork (6%)	\$8,116
7	Concrete curb, barrier (6%)	\$7,420
8	Concrete mono. curb & side	\$14,378
19	Site steps -6X6 PTL borders	\$11,730
24	Tree replacement (allowanc	\$10,000
30	Retaining Wall - seg.block, r	\$12,480
31	Fence - wood spit rail (50%)	\$1,785
33	Fence - Wood board rail (50	\$1,227
36	Pavers - reset (33.3%)	\$454
Total Scheduled Replacements		\$67,588

Item	FY 2051 - YEAR 32	\$
4	SS - Asphalt pavement, sea	\$8,624
5	Asphalt path, overlay (33.3%	\$7,068
Total Scheduled Replacements		\$15,692

Item	FY 2052 - YEAR 33	\$
2	ES - Asphalt pavement, sea	\$14,808
25	Retaining Wall - 6" X 6" PTL	\$29,700
27	Retaining Wall - 3" X 5" PTL	\$2,079
Total Scheduled Replacements		\$46,587

Item	FY 2053 - YEAR 34	\$
24	Tree replacement (allowanc	\$10,000
Total Scheduled Replacements		\$10,000

Item	FY 2054 - YEAR 35	\$
4	SS - Asphalt pavement, sea	\$8,624
29	Retaining Wall - 2" X 10" PT	\$1,040
Total Scheduled Replacements		\$9,664

Item	FY 2055 - YEAR 36	\$
2	ES - Asphalt pavement, sea	\$14,808
16	Wood ped. bridge, PTL raili	\$1,710
17	Wood ped. bridge, composit	\$1,788
32	Fence - wood spit rail (50%)	\$1,785
34	Fence - Wood board rail (50	\$1,227
Total Scheduled Replacements		\$21,318

Item	FY 2056 - YEAR 37	\$
5	Asphalt path, overlay (33.3%	\$7,068
6	Concrete flatwork (6%)	\$8,116
7	Concrete curb, barrier (6%)	\$7,420
8	Concrete mono. curb & side	\$14,378
24	Tree replacement (allowanc	\$10,000
25	Retaining Wall - 6" X 6" PTL	\$29,700
Total Scheduled Replacements		\$76,681

Item	FY 2057 - YEAR 38	\$
4	SS - Asphalt pavement, sea	\$8,624
10	Mailbox, cluster (12 unit)	\$6,420
14	Storm water drain piping anc	\$7,500
Total Scheduled Replacements		\$22,544

Item	FY 2058 - YEAR 39	\$
2	ES - Asphalt pavement, sea	\$14,808
21	Site steps -Structure w/com	\$2,600
22	Site steps - Composite railin	\$900
23	Site steps -Composite decki	\$1,000
Total Scheduled Replacements		\$19,308

Item	FY 2059 - YEAR 40	\$
11	Mailbox, cluster (8 unit)	\$11,880
24	Tree replacement (allowanc	\$10,000
Total Scheduled Replacements		\$21,880

Item	2060 (beyond Study Period)	\$
4	SS - Asphalt pavement, sea	\$8,624
20	Site steps -6X6 PTL borders	\$6,768
25	Retaining Wall - 6" X 6" PTL	\$29,700
31	Fence - wood spit rail (50%)	\$1,785
33	Fence - Wood board rail (50	\$1,227
36	Pavers - reset (33.3%)	\$454
Total Scheduled Replacements		\$48,557

Item	2061 (beyond Study Period)	\$
2	ES - Asphalt pavement, sea	\$14,808
5	Asphalt path, overlay (33.3%	\$7,068
12	Mailbox, cluster (8 unit)	\$13,860
Total Scheduled Replacements		\$35,736

Item	Y 2062 (beyond Study Period)	\$
6	Concrete flatwork (6%)	\$8,116
7	Concrete curb, barrier (6%)	\$7,420
8	Concrete mono. curb & side	\$14,378
24	Tree replacement (allowanc	\$10,000
Total Scheduled Replacements		\$39,913

Item	2063 (beyond Study Period)	\$
4	SS - Asphalt pavement, sea	\$8,624
13	Entrance monument, carved	\$740
26	Retaining Wall - 4" X 4" PTL	\$7,808
Total Scheduled Replacements		\$17,172

Item	2064 (beyond Study Period)	\$
2	ES - Asphalt pavement, sea	\$14,808
3	SS - Asphalt pavement, mill	\$65,856
25	Retaining Wall - 6" X 6" PTL	\$29,700
28	Retaining Wall - 5" X 7" railr	\$1,188
Total Scheduled Replacements		\$111,552

CONDITION ASSESSMENT

General Comments. Miller - Dodson Associates conducted a Reserve Study at Spring Breeze in October 2019. Spring Breeze is in generally fair condition for a townhouse community constructed in 1981 -82. A review of the Replacement Reserve Inventory will show that we are anticipating most of the components achieving their normal economic lives.

The following comments pertain to the larger, more significant components in the Replacement Reserve Inventory and to those items that are unique or deserving of attention because of their condition or the manner in which they have been treated in the Replacement Reserve Analysis or Inventory.

General Condition Statements.

Excellent. 100% to 90% of Normal Economic Life expected, with no appreciable wear or defects.

Good. 90% to 60% of Normal Economic Life expected, minor wear or cosmetic defects found. Normal maintenance should be expected. If performed properly, normal maintenance may increase the useful life of a component. Otherwise, the component is wearing normally.

Fair. 60% to 30% of Normal Economic Life expected, moderate wear with defects found. Repair actions should be taken to extend the life of the component or to correct repairable defects and distress. Otherwise, the component is wearing normally.

Marginal. 30% to 10% of Normal Economic Life expected, with moderate to significant wear or distress found. Repair actions are expected to be cost effective for localized issues, but normal wear and use are evident. The component is reaching the end of the Normal Economic Life.

Poor. 10% to 0% of Normal Economic Life expected, with significant distress and wear. Left unattended, additional damage to underlying structures is likely to occur. Further maintenance is unlikely to be cost effective.

The component condition and cost projections estimates listed in this report are based upon consultant's observations during the site visit. The replacement estimates are for components or systems exhibiting either patent defects, significant deferred maintenance, or requiring major repairs or replacement. Cost estimates assume that all work will be conducted by licensed contractors and will be conducted as a single project. If repairs are done piece-meal, the costs would be significantly higher. It should be understood that accurate cost figures for the required remedial work cannot be properly developed until design work (preparation of specifications, proposals and permits & drawings if required) is obtained by the Association. The opinions of replacement cost presented in the report are only approximations for preliminary budgeting purposes, are based upon limited information and do not include any reserve or contingency for inflation or unforeseeable items.

SITE COMPONENTS

Asphalt Pavement. The Association is responsible for the access drives, parking areas, and paths within the community; other roadways are maintained by the City, County, or other municipality. In general, the Association's asphalt pavements are in fair condition, with cracking and distress in a few locations.

The Association maintains an inventory of 105,500 sf. asphalt pavement along the following streets and areas:

9701 – 9795 Early Spring Way	67,310 sf.	9501 – 9603 Sea Shadow	38,190 sf.
Asphalt path	4,560 sf.		

The paths are in fair to marginal condition, with cracking and the following conditions observed:

- **Raveling and aging.** Asphalt raveling occurs when small crack formations expand and allow water and debris to permeate the surface of the pavement. As the cracks continue to expand over time, small particles of aggregate break apart and eventually compromise the foundation of the pavement. Over time, the broken pieces of aggregate become bigger and bigger until potholes start to form. The pavement loses its smooth surface and begins to appear very open and rough. The severity is rated by the degree of aggregate and binder loss.
- **Tree Root Damage.** There are locations where roots from trees planted near the asphalt surface have pushed up through the asphalt, causing cracks and heaving. Repair of these areas will require removal of the asphalt and the tree roots and / or the trees.

Asphalt paths are typically constructed on native soil. As a result, defects can begin to develop in a few years, leading to costly repairs or early replacement. Additionally, paths typically do not have proper edge confinement and support resulting in longitudinal cracking along the edges of the path. Compacted soil or gravel can mitigate this problem. Lastly, tree root damage is a common issue with asphalt paths, and some communities have had success with a process called root trimming.

As a rule of thumb, asphalt should be overlaid when approximately 5% of the surface area is cracked or otherwise deteriorated. The normal service life of asphalt pavement is typically 18 to 20 years.

In order to maintain the condition of the pavement throughout the community and to ensure the longest life of the asphalt, we recommend a systematic and comprehensive maintenance program that includes:

- **Cleaning.** Long-term exposure to oil or gas breaks down asphalt. Because this asphalt pavement is generally not used for long-term parking, it is unlikely that frequent cleaning will be necessary. When necessary, spill areas should be cleaned or patched if deterioration has penetrated the asphalt. This is a maintenance activity, and we have assumed that it will not be funded from Reserves.
- **Crack Repair.** All cracks should be repaired with an appropriate compound to prevent water infiltration through the asphalt into the base. This repair should be done annually. Crack repair is normally considered a maintenance activity and is not funded from Reserves. Areas of extensive cracking or deterioration that cannot be made watertight should be cut out and patched.
- **Asphalt Pavement Sealcoating.** Asphalt pavement is a mixture of graded stone aggregate and asphalt. The asphalt is the binder or glue that holds the pavement together. If left unprotected, asphalt is subject to degradation from oxidation and water penetration. Ultraviolet rays from the sun begin to break down the asphalt binder, changing the pavement surface color from black to gray. Gas, oil and other petrochemicals will dissolve the asphalt binder causing holes and raveling. As the asphalt binder breaks down, water begins to penetrate the surface and erode the binder between the individual stones in the pavement. If cracks are present, water will begin to erode the base beneath the asphalt, causing the cracks to enlarge and eventually causing base failure in the form of potholes. Pavement seal coating materials are designed to extend the life of asphalt from damage caused by UV degradation, gas/oil, road salt, and prevent water from entering into the pavement which causes freeze/thaw cycle damage

The use of pavement sealants containing coal tar is prohibited in Anne Arundel County, Montgomery County, Prince Georges County Maryland and Washington DC. It is our understanding that several additional Maryland County's, including Howard County, will enact similar legislation in the fall of 2019 or spring of 2020. A survey of asphalt and seal coating contractors indicates that the majority are no longer using the coal tar-based seal coating products. Based on the information currently available, we believe it is prudent for the Association to begin budgeting for the alternative seal coating products. The recommended alternatives for coal tar sealants are Asphalt based sealants or Latex sealants. Some of the newer sealcoats contain no water, with the liquids being agricultural, plant-based oil and various types of hydrocarbon solvents, usually with some polymers designed to replace lost or

oxidized oils and restore flexing and binding properties of the asphalt pavement. The typical asphalt-based or latex based sealer has a life of approximately 3 years (compared to approximately 5 years for coal tar sealants), depending upon traffic and environmental conditions.

The pricing used is asphalt pavement mill and overlay is based on a two-inch overlay, which reflects the current local market for this work. Lastly, the resource links provided on our website may provide insight into the general terms and concerns, including maintenance related advantages and disadvantages, which may help the Association better manage the asphalt pavements throughout the community:

<http://mdareserves.com/resources/links/site-components>.



Typical asphalt pavement cracking and raveling condition



Typical alligator cracking conditions



Location of asphalt paths included in this report



Typical path raveling, cracking and ageing conditions

Concrete Work. The concrete work includes the community concrete flatwork, barrier curbs and monolithic curb and sidewalks. (Unit lead walks, steps, stoops and patios were reported as Unit Owner Responsibly). The overall condition of the concrete work is fair with a few tripping and areas of general deterioration, including cracking, spalling, and scale.

- **Concrete Flatwork.** The concrete flatwork includes the community common area sidewalks and mailbox pads. The Association maintains an inventory of approximately 12,460 square feet of concrete flatwork. The overall condition of the concrete flatwork is marginal with multiple areas of defects. The defects noted include the following:
 - **Cracking.** There are a number of sections of the concrete flatwork that have cracked.
 - **Settlement.** Sections of the concrete flatwork have heaved or settled relative to their adjacent sections, creating trip hazards. Americans with Disabilities Act (ADA) defines a trip hazard as any vertical change of ¼" or more at a joint or crack in a walkway surface
 - **Scaling and Flaking.** Several sections of the concrete flatwork are scaling and flaking. Scaling and flaking are the loss of the surface mortar in concrete, typically caused by water freezing within the concrete. Once started, scaling and flaking can be expected to continue to grow as a result of exposure of the concrete to freeze-thaw cycles.
 - **Tree Root Damage.** There are locations where roots from trees planted near the concrete walks have pushed the concrete, causing cracks and heaving. Repair of these areas will require removal of the asphalt and the tree roots.



Typical scaling condition



Concrete heaved by tree roots, trip hazard



Typical cracking condition



Concrete section settled, trip hazard

NOTE: We observed a number of location where section of the concrete have been removed by BG&E for repairs. The areas were filled with asphalt. We have assumed that BG&E will replace the asphalt and install concrete.



- **Barrier Curbs.** Barrier curbs, also called straight curbs, have a vertical or nearly-vertical face which is used to discourage motor vehicle drivers from leaving the roadway. Barrier curbs cannot be driven over by most vehicles, i.e. they function like a permanent obstacle. A second important function is the curbs collect water from crowned pavements and convey it to points of collection, thus reducing the amount of water that gets under the pavement. They outline the edges of pavements and provide easily definable borders between vehicle traveled and pedestrian traveled surfaces. They confine pavement structures, especially if the pavements are composed of layers of materials that must be compacted in-place.



Broken barrier curb section



Curb damaged by vehicle traffic

- **Monolithic Curbs and Sidewalks.** Monolithic curb and sidewalks, are also called integral curb-walks, are variation of barrier curbs. Barrier curbs perform the critical function of preventing vehicles from slipping away from the designated parking space. The monolithic curb is poured at the same time as a concrete sidewalk permanently joining the two components into one entity. The lack of seams helps to render more durability to the curb sections. As a result, wear and tear induced by vehicular traffic along the edges is neutralized to a greater extent. Lack of seams also neutralizes chances of water penetration. However, this type of curb and sidewalk system makes replacing the individual sections difficult because the parts are interlocked. If part of the sidewalk is affected by cracking, settlement, tree roots or spalling, both the curb and the sidewalk sections must be replaced making the process much more expensive.



Typical monolithic curb / sidewalk cracking

The standards we used for recommending concrete component replacement are as follows:

1. Trip hazard, 0.250-inch height difference.
2. Severe cracking.
3. Severe spalling

Because it is highly unlikely that all of the community's concrete components will fail and require replacement in the period of the study, we have programmed funds for the replacement of 60 percent of the inventory and spread those funds over a 60-year timeframe to reflect the incremental nature of this work. This approach assumes a failure rate of one percent per year.

The relevant links on our web site may provide useful information related to concrete terminology, maintenance, and repair. Please see <http://mdareserves.com/resources/links/site-components>.

Concrete Drainage Swales. The swales along the access drive and parking areas on Early Spring Way are slope sided concrete barriers which directs the storm water to the catch basins location at the parking area islands. We have given these concrete swales a general economic life of 40 years. The predominant cause of failure of these structures is vehicular traffic. The overall condition of the concrete swales is fair with areas of general deterioration, including cracking, spalling, and scale.



Cluster Mailboxes. The USPS (United States Postal Service) refers to the type of pedestal cluster mailbox units currently installed within the community as NDCBU's (Neighborhood Delivery and Collection Box Unit). These pedestal cluster mailboxes have been decertified by the USPS and may only be used to replace existing pedestal mailboxes of the same style by special approval of the postmaster.

CBU mailbox units (Cluster Box Unit) are the new standard for pedestal cluster mailboxes when replacing the NDCBU mailboxes. Like its predecessor the NDCBU, each CBU has multiple compartments for the centralized delivery of mail. The compartments of the CBU mailboxes are typically 5" high by 12 ½" wide by 15" deep. This allows mailed units to be placed into the boxes without folding or bending. This new design also incorporates a parcel locker and an outgoing mail slot for resident convenience.



The Association currently maintains (1) 8-unit, (3) 12-unit and (6) 16-unit cluster mailboxes that are in mixed condition. Mailboxes should be maintained to the extent that rust does not develop on the structure or pedestal. All mail slot doors remain intact and hinges and locks remain operable. Our replacement estimate assumes that these units will be replaced with standard CBU mailboxes. The Association has chosen to replace the 16- unit mail boxes with 8-unit mailboxes.

Entrance Monument. Wooden signage has been erected as an entrance monument to the community at Early Spring Way and Vollmerhausen Road. The wooden sign has carved lettering on both sides and is in fair condition. Wooden signs must be kept sealed to prevent deterioration and damage. We have included funding for the replacement of the signage based on national averages. Funds for painting and minor repairs to the existing signage are considered routine maintenance and are not included in the study.



Storm Water Drainage. We have included the catch basins and underground piping portions of the storm water system in the Reserve Analysis. No engineering drawings were available to accurately determine distances, sizes of lines, and materials used for underground components of the system. Accordingly, we have provided an estimate of the approximate replacement cost based on our experience with other communities of similar size and on our inspection of the visible components while on site. Inspection of the underground lines and structures is beyond the scope of work of this study.

Because it is highly unlikely that all of the community's storm water drainage piping or catch basins will fail and require replacement in the period of the study, we have programmed funds for the replacement of ten percent of the inventory every 20 years to reflect the incremental nature of this work.



Pedestrian Bridge. The community maintains a pedestrian bridge constructed of pressure treated wooden structure, with composite decking and pressure treated wooden railing. Located along the concrete sidewalk east of 9762 Early Spring Way the bridge is in good overall condition with areas of general deterioration on the PTL wood railings.

A detailed inspection of the bridge is beyond the scope of this work. In general, no significant deterioration was found and the structures appeared sound. An annual evaluation of the bridge is recommended to determine the condition of each component. Periodic or annual inspections will provide assurance that the components are being maintained. Once detected by annual inspections there is ample time to take corrective action before significant damage can occur. We have not reserved for these inspections since this is considered a normal routine maintenance function. Particular attention should be given to the safety of the bridge and railings.



Site steps. The community maintains has a number of exterior site steps that are constructed of treated wood materials. The steps are constructed in a variety of systems ranging from timber tread construction, timber construction to timber border with paver inlay construction and traditional frame construction.

The effectiveness of treated timber lumber is dependent upon the following factors: type of chemical used, amount of penetration, amount of retention, and uniform distribution of treatment materials. The expression, treated wood, refers to wood meeting the retention, penetration and other requirements applicable to the species, product, treatment and conditions of use of the components. There are no permanent markings on the wooden stairway components that identify the method of treatment. We recommend that an application of an oil-based sealant be applied to the timber stairway components periodically to retard moisture absorption into the components. The schedule for this recommended maintenance procedure should be based upon annual inspections, preferably in the early spring, for insect infestation, indications of decay, and indications of any damage. It should be emphasized that damage from decay or insect infestation develops slowly. Periodic or annual inspections will provide assurance that the components are being maintained. Once detected by annual inspections there is ample time to take corrective action before significant damage can occur. We have not reserved for these inspections or the application of the oil-based sealants since this is considered a normal routine maintenance function.

1. Timber Steps. The community has a several sets of exterior steps that are constructed from 6" X 6" timber material. The general condition of the timber borders and treads from fair to poor.

Although the 6" X 6" treads are treated, they will rot with time and exposure to moisture. We noted several steps where the rot has progressed sufficiently to warrant replacement of the timber. Rotted steps treads can pose a trip hazard. We noted several steps where the splitting and deterioration has progressed sufficiently to warrant replacement.



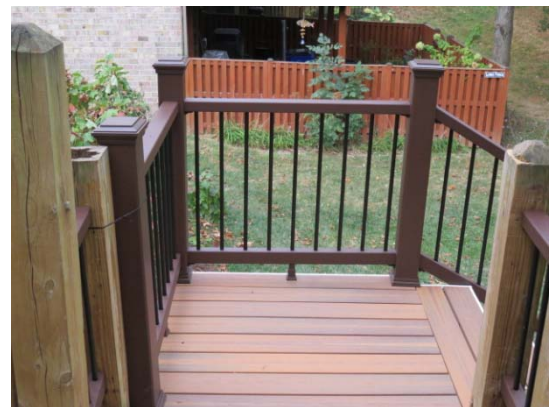
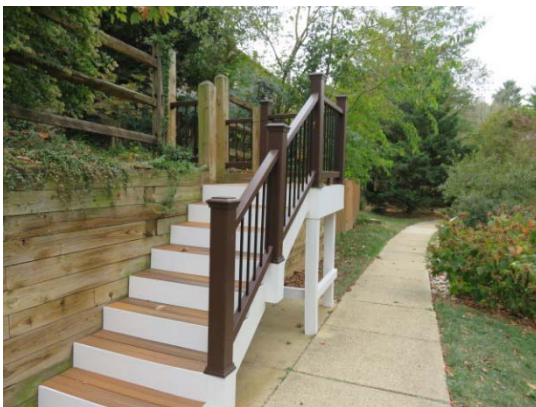
2. Timber Steps with Paver Inlays. The community has several sets of exterior steps that are constructed from 6" X 6" timber borders with concrete pavers and / or slate installed between the borders of the steps and landings. The general condition of the timber bordered with concrete pavers and / or slate inlay is fair to poor.

Although the 6" X 6" treads are treated, they will rot with time and exposure to moisture. We noted several steps where the rot has progressed sufficiently to warrant replacement of the timber. Rotted steps treads can pose a trip hazard.



Although the 6" X 6" treads are treated, they will rot with time and exposure to moisture. We noted several steps where the rot has progressed sufficiently to warrant replacement of the timber. Rotted steps treads can pose a trip hazard. As the wood components in the steps goes through repeated cycles of wet and dry, the wood will change dimensions, resulting in cracks that can extend well into the material. We noted several steps where the splitting has progressed sufficiently to warrant replacement.

3. Composite Wood Steps. The community has a set of exterior steps that are constructed from composite clad structural members, composite landing and step treads and composite railings. The steps currently are in good condition.



We have separated the steps into three components in the Reserve Analysis to reflect the different service lives of these components; the step and platform treads, the step and platform structure, and the railings. The service life for steps and platform treads constructed from composite lumber is 20

years for the landing and step treads, 40 years for the step and platform structure, and 40 years for the composite railings, assuming proper maintenance is performed on a regular basis. We recommend that the community inspect the composite step structure on an annual basis.

Walkway with stepping pavers. The community has a several walkways that are constructed with 1' X 2' concrete pavers or 2' X 2' slate pavers. A major benefit of concrete pavers and slate pavers is that individual units can be easily removed, damaged units and / or underlying problem corrected, and pavers reinstalled. For ease of administration of the Replacement Reserves and to reflect accurately how Replacement Reserves are administered, items with a dollar value less than \$1,000.00 have not been scheduled for funding from Replacement Reserves.



X

Tree Removal Allowance. Healthy trees are an asset for any community, and proper pruning and thinning is integral to tree health. Many factors—climate, soil conditions, health of the plant—determine what type and how much maintenance each type of planting requires. Local authorities, including the state university and the local Cooperative Extension Services are excellent sources of information about all aspects of landscaping and grounds maintenance.



We observed a number of locations where tree have been removed, locations where trees, tree limbs and roots are encroaching on the asphalt path and common area sidewalks. We have provided an allowance for the incremental removal and / or replacement of trees based on information provided by Mr. Don Gentry. In our opinion it is prudent for the Association to anticipate that in addition to the trees in need of immediate removal, additional tree removal / replacement will be required in the future.

Pressure Treated Wood Retaining Walls. The Association maintains an inventory of approximately 3,750 square feet of 6"X6 "; approximately 320 square feet of 4"X4 "; approximately 110 square feet of 3"X5 "and approximately 30 square feet if 5" X 7" railroad tie wood retaining walls. The general condition of the retaining wall ranges from good to poor.

The defects noted include the following:

- Rot. We found numerous areas where sections of the retaining walls have moderate to extensive rot. Once rotting occurs, those affected sections must be replaced.
- Bowing. We found a number of areas where sections of the retaining walls are bowing outward. Bowing occurs as the result of moderate to severe loading of the wall by the material being supported. If the bowing is allowed to continue, eventually it will lead to the failure of the retaining wall. Correcting

bowing requires replacement of the sections of retaining wall and installation of better drainage materials behind the wall.

- Leaning. We found a number of areas where sections of the retaining walls are leaning. Leaning occurs when the pressure of the material being held in place by the retaining wall is sufficient to cause the wall to shift away from the vertical. Once a retaining wall starts to lean, it is at risk of failing and should be replaced.
- Failed Sections. We found a number of areas where individual members of the retaining walls have failed. These sections can cause material behind the wall to pass through the wall and can lead to additional damage to the wall. Repair of failed members requires replacement of that section of the retaining wall.

Wood retaining walls will experience rot and decay over time and partial replacement of defective wooden members is often possible in the early stages of decay. Eventually however, these walls will require replacement. Changes in environmental regulations have resulted in the use of new chemicals for treating the wood. These chemicals are not as effective in protecting the wood and their use will result in a shorter typical service life of 15 years. When it becomes necessary to replace these walls, we recommend the Association consider one of the segmental block retaining wall systems instead of the wood construction. These systems are impervious to decay, which occurs even with the pressure treated.



Typical wall in good condition



Typical wall with rot and displacement



Wall leaning





Typical 3" X 5" retaining wall, displaced & leaning



2"X10" PTL boards on edge w/ 1' X 3" top caps

Segmental Block Retaining Walls. The community maintains an inventory of 780 square feet, of various stone dimensions, segmental block retaining wall. Segmental block retaining walls can have an extended useful life, and if stable, are likely to only require localized resetting of displaced blocks, typically near the top of the wall. The overall condition of these walls is good.



The industry considers this type of retaining wall to be maintenance-free for 40 years and have an estimated service life of 80-100 years. If this conclusion is accepted, there is no need to reserve for this very significant component. However, if major work must be performed on this wall at some point in time because of settlement, erosion, latent construction defects, etc., the cost will be very high. Therefore, we have included funding for resetting / replacement of 30% of this wall at 40 years, which permits the association to accumulate slowly for this possibility.

Brick Retaining Walls. The community has brick retaining wall that it maintains. The total brick retaining wall inventory is approximately 140 square feet. We have assumed that these walls will be replaced on an as necessary basis.



All brick sections are in good condition, however, because weather and other conditions result in the slow deterioration of the mortar in masonry joints. Periodic repointing and local replacement of damaged masonry units will limit the damage done by moisture penetration. For this study, we assume that 10% of the masonry will require repointing every 10 years. For ease of administration of the Replacement Reserves and to reflect accurately how Replacement Reserves are administered, items with a dollar value less than \$1,000.00 have not been scheduled for funding from Replacement Reserves.

For additional information about masonry and repointing, please view the relevant links at <http://mdareserves.com/resources/links/building-exterior>.

Wood Fencing. The Association maintains an inventory of approximately 150 linear feet of three rail wood fencing and 90 linear feet of wood board rail fencing along the top of some of the retaining walls. The overall condition of the fencing ranges from fair to marginal. The defects noted include the following:

- Loose/Leaning Fence Posts. A number of the wood fence posts are not properly supported by the ground. As a result, they are loose and can be easily moved. Additional posts are leaning.
- Broken/Missing Rails. A number of the wood fence rails are broken or are missing.
- Rot. There is moderate to extensive rot throughout the fencing components.

Weather and other conditions over time can cause wooden split rails to lose their strength, crack, splinter, rot, termite damage, and other degradation. The average service life of wooden split rail fencing is 20 years, but failure can occur as early as five years after construction.





Typical loose post and missing rails

Pavers. Pavers provide a solid, decorative, and renewable surface that are part of the community's sidewalks adjacent to several retaining walls and mailbox areas. The overall condition of the pavers is fair with areas of defects consistent with the age of the installation. The defects noted include the following:

- Cracking. There are multiple cracked pavers, some of which are creating trip hazards.
- Settlement. We identified areas where pavers have settled due to a failure of the base under the pavers. This settlement has resulted in an uneven surface that can pose a trip hazard.



Pavers at retaining wall



Pavers at mailbox area settled below curb line

To correct defects and provide the longest service life of the unit paver system, periodic re-setting is required. Re-setting provides an opportunity to replace broken unit pavers, fill in voids in the foundation material, and level the surface. We have included an allowance for periodic re-set of portions of the system.

Pavers have a service life of 30 years or more if the system is maintained on a periodic basis. Eventually the system will require a large-scale replacement, identical paver units may not be available and it is recommended that the paver system be replaced.

Sitting Area. The Association maintains several sitting areas located throughout the community. The park sitting area consists of benches placed on earthen surfaces. We have assumed that the benches will be replaced on-an-as needed basis. For ease of administration of the Replacement Reserves and to reflect accurately how Replacement Reserves are administered, items with a dollar value less than \$1,000.00 have not been scheduled for funding from Replacement Reserves.



This Condition Assessment is based upon our visual survey of the property. The sole purpose of the visual survey was an evaluation of the common elements of the property to ascertain the remaining useful life and the replacement costs of these common elements. Our evaluation assumed that all components met building code requirements in force at the time of construction. Our visual survey was conducted with care by experienced persons, but no warranty or guarantee is expressed or implied.

End of Condition Assessment

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CASH FLOW METHOD ACCOUNTING SUMMARY

This Spring Breeze Community Association - Cash Flow Method Accounting Summary is an attachment to the Spring Breeze Community Association - Replacement Reserve Study dated October 8, 2019 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles.

This Summary consists of four reports, the 2020, 2021, and 2022 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- CASH FLOW METHOD CATEGORY FUNDING REPORT, 2020, 2021, and 2022. Each of the 36 Projected Replacements listed in the Spring Breeze Community Association Replacement Reserve Inventory has been assigned to one of 3 categories. The following information is summarized by category in each report:
 - Normal Economic Life and Remaining Economic Life of the Projected Replacements.
 - Cost of all Scheduled Replacements in each category.
 - Replacement Reserves on Deposit allocated to the category at the beginning and end of the report period.
 - Cost of Projected Replacements in the report period.
 - Recommended Replacement Reserve Funding allocated to the category during the report period as calculated by the Cash Flow Method.
- THREE-YEAR REPLACEMENT FUNDING REPORT. This report details the allocation of the \$60,000 Beginning Balance (at the start of the Study Year) and the \$184,471 of additional Replacement Reserve Funding in 2020 through 2022 (as calculated in the Replacement Reserve Analysis) to each of the 36 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and discussed below. The calculated data includes:
 - Identification and estimated cost of each Projected Replacement scheduled in years 2020 through 2022.
 - Allocation of the \$60,000 Beginning Balance to the Projected Replacements by Chronological Allocation.
 - Allocation of the \$184,471 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2020 through 2022, by Chronological Allocation.
- CHRONOLOGICAL ALLOCATION. Chronological Allocation assigns Replacement Reserves to Projected Replacements on a "first come, first serve" basis in keeping with the basic philosophy of the Cash Flow Method. The Chronological Allocation methodology is outlined below.
 - The first step is the allocation of the \$60,000 Beginning Balance to the Projected Replacements in the Study Year. Remaining unallocated funds are next allocated to the Projected Replacements in subsequent years in chronological order until the total of Projected Replacements in the next year is greater than the unallocated funds. Projected Replacements in this year are partially funded with each replacement receiving percentage funding. The percentage of funding is calculated by dividing the unallocated funds by the total of Projected Replacements in the partially funded year.

At Spring Breeze Community Association the Beginning Balance funds 85.9% of Scheduled Replacements in the Study Year.
 - The next step is the allocation of the \$61,490 of 2020 Cash Flow Method Reserve Funding calculated in the Replacement Reserve Analysis. These funds are first allocated to fund the partially funded Projected Replacements and then to subsequent years in chronological order as outlined above.

At Spring Breeze Community Association the Beginning Balance and the 2020 Replacement Reserve Funding, funds replacements through 2022 and partial funds (68.2%) replacements in 2023.
 - Allocations of the 2021 and 2022 Reserve Funding are done using the same methodology.
 - The Three-Year Replacement Funding Report details component by component allocations made by Chronological Allocation.

2020 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 36 Projected Replacements included in the Spring Breeze Community Association Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CF1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory.

The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of \$60,000 as of the first day of the Study Year, January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$121,490 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2020 being accomplished in 2020 at a cost of \$69,846.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2020 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2020 BEGINNING BALANCE	2020 RESERVE FUNDING	2020 PROJECTED REPLACEMENTS	2020 END OF YEAR BALANCE
SITE COMPONENTS (ES) - Early Spring // (S	3 to 35 years	0 to 7 years	\$284,709	\$25,696	\$41,642	(\$29,913)	\$37,425
SITE COMPONENTS (cont.)	3 to 40 years	0 to 38 years	\$100,621	\$31,327	\$19,360	(\$36,468)	\$14,219
SITE COMPONENTS (cont.)	10 to 40 years	0 to 20 years	\$9,353	\$2,977	\$488	(\$3,465)	

2021 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 36 Projected Replacements included in the Spring Breeze Community Association Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CF2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$51,644 on January 1, 2021.
- Total reserve funding (including the Beginning Balance) of \$182,980 from 2020 through 2021.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2021 being accomplished in 2021 at a cost of \$15,692.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2021 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF2								
CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2021 BEGINNING BALANCE	2021 RESERVE FUNDING	2021 PROJECTED REPLACEMENTS	2021 END OF YEAR BALANCE	
SITE COMPONENTS (ES) - Early Spring // (S	3 to 35 years	0 to 6 years	\$284,709	\$37,425	\$40,818	(\$15,692)	\$62,551	
SITE COMPONENTS (cont.)	3 to 40 years	1 to 37 years	\$100,621	\$14,219	\$20,672		\$34,891	
SITE COMPONENTS (cont.)	10 to 40 years	4 to 19 years	\$9,353					

2022 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 36 Projected Replacements included in the Spring Breeze Community Association Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CF3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$97,442 on January 1, 2022.
- Total Replacement Reserve funding (including the Beginning Balance) of \$244,471 from 2020 to 2022.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2022 being accomplished in 2022 at a cost of \$23,307.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2022 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF3								
CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2022 BEGINNING BALANCE	2022 RESERVE FUNDING	2022 PROJECTED REPLACEMENTS	2022 END OF YEAR BALANCE	
SITE COMPONENTS (ES) - Early Spring // (S	3 to 35 years	0 to 5 years	\$284,709	\$62,551	\$44,893	(\$21,228)	\$86,216	
SITE COMPONENTS (cont.)	3 to 40 years	0 to 36 years	\$100,621	\$34,891	\$16,597	(\$2,079)	\$49,409	
SITE COMPONENTS (cont.)	10 to 40 years	3 to 18 years	\$9,353					

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF4 below details the allocation of the \$60,000 Beginning Balance, as reported by the Association and the \$184,471 of Replacement Reserve Funding calculated by the Cash Flow Method from 2020 to 2022, to the 36 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$60,000 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$51,644 on January 1, 2021.
- Replacement Reserves on Deposit totaling \$97,442 on January 1, 2022.
- Total Replacement Reserve funding (including the Beginning Balance) of \$244,471 from 2020 to 2022.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2020 to 2022 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of \$108,846.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates, Inc., to arrange for an update of the Replacement Reserve Study.

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2020 Reserve Funding	2020 Projected Replacements	2020 End of Year Balance	2021 Reserve Funding	2021 Projected Replacements	2021 End of Year Balance	2022 Reserve Funding	2022 Projected Replacements	2022 End of Year Balance
SITE COMPONENTS (ES) - Early Sp												
1	ES - Asphalt pavement, mill & overlay	113,081										
2	ES - Asphalt pavement, seal coat	14,808		14,808		14,808			14,808		(14,808)	
3	SS - Asphalt pavement, mill & overlay	65,856					30,948		30,948	34,234		65,182
4	SS - Asphalt pavement, seal coat	8,624		8,624		8,624	4,053	(8,624)	4,053	4,483		8,536
5	Asphalt path, overlay (33.3%)	7,068		7,068		7,068		(7,068)				
6	Concrete flatwork (6%)	8,116	6,972		(8,116)							
7	Concrete curb, barrier (6%)	7,420	6,374	1,046	(7,420)							
8	Concrete mono. curb & sidewalk (6%)	14,378	12,351	2,027	(14,378)							
9	Concrete access drive swale (20%)	4,959										
10	Mailbox, cluster (12 unit)	6,420		6,420		6,420			6,420		(6,420)	
11	Mailbox, cluster (8 unit)	11,880					5,583		5,583	6,176		11,758
12	Mailbox, cluster (8 unit)	13,860										
13	Entrance monument, carved wood	740		504		504	236		740			740
14	Storm water drain piping and basins	7,500										
SITE COMPONENTS (cont.)												
15	Wood ped. bridge,PTL structure	4,140										
16	Wood ped. bridge, PTL railing	1,710										
17	Wood ped. bridge, composite decking	1,788										
18	Site steps - 6"X6" PTL timber steps	5,690										
19	Site steps -6X6 PTL borders w/ pavers	11,730										
20	Site steps -6X6 PTL borders w/ slate	6,768	5,814	954	(6,768)							
21	Site steps -Structure w/composite clad	2,600										
22	Site steps - Composite railing	900										
23	Site steps -Composite decking & tread	1,000										
24	Tree replacement (allowance)	10,000		6,817		6,817	3,183		10,000			10,000
25	Retaining Wall - 6" X 6" PTL (20%)	29,700	25,513	4,187	(29,700)		13,957		13,957	15,439		29,396
26	Retaining Wall - 4" X 4" PTL	7,808		5,323		5,323	2,485		7,808			7,808
27	Retaining Wall - 3" X 5" PTL	2,079		2,079		2,079			2,079		(2,079)	
28	Retaining Wall - 5" X 7" railroad tie	1,188					558		558	618		1,176
29	Retaining Wall - 2" X 10" PTL w/ cap	1,040					489		489	541		1,029
30	Retaining Wall - seg.block, reset (40%)	12,480										
SITE COMPONENTS (cont.)												
31	Fence - wood spit rail (50%)	1,785	1,533	252	(1,785)							
32	Fence - wood spit rail (50%)	1,785										
33	Fence - Wood board rail (50%)	1,227	1,054	173	(1,227)							
34	Fence - Wood board rail (50%)	1,227										
35	Pavers - replace	2,876										
36	Pavers - reset (33.3%)	454	390	64	(454)							

COMPONENT METHOD

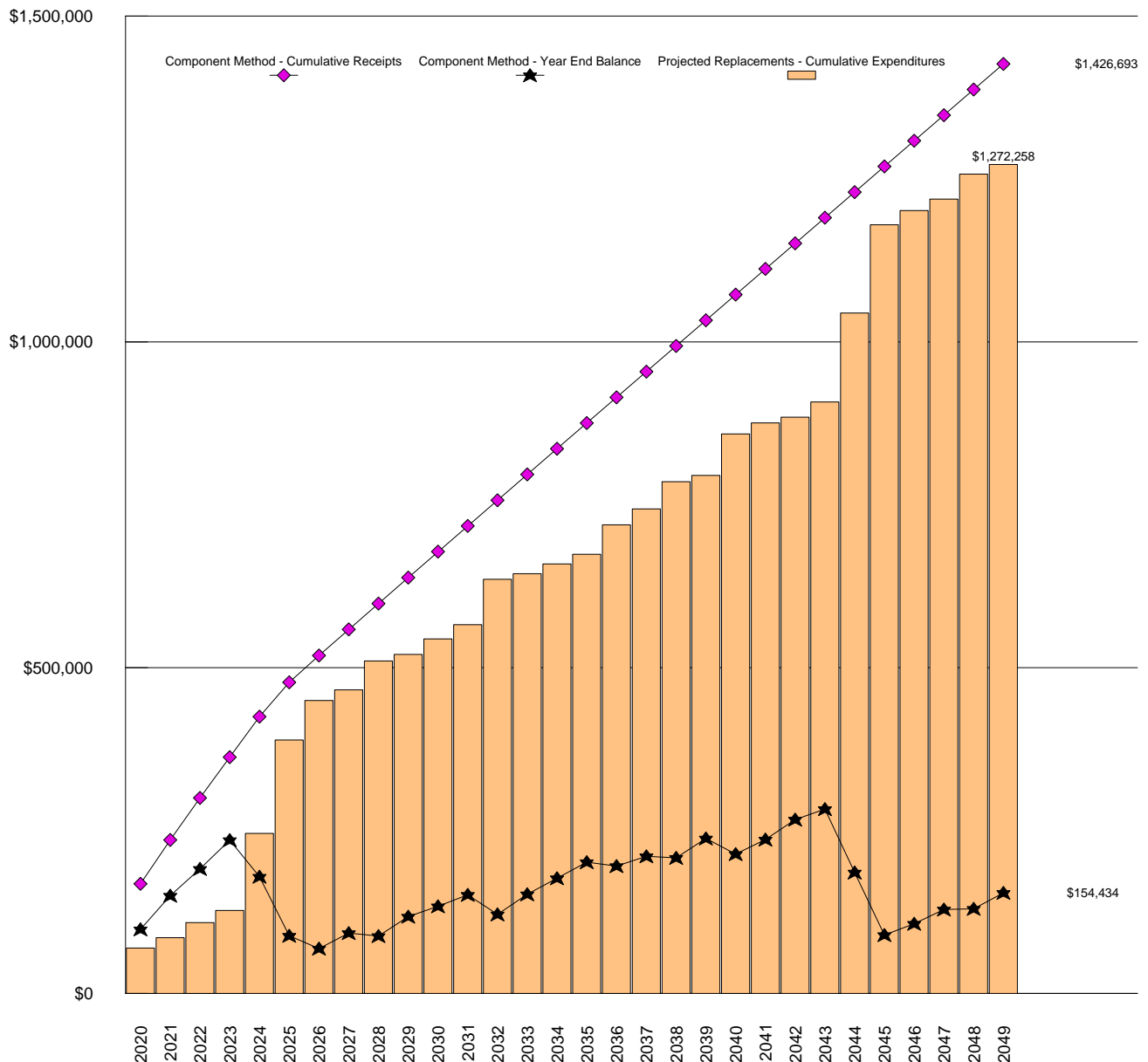


\$108,249 COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2020.

\$68.86 Per unit (average), recommended monthly funding of Replacement Reserves

General. The Component Method (also referred to as the Full Funded Method) is a very conservative mathematical model developed by HUD in the early 1980s. Each of the 36 Projected Replacements listed in the Replacement Reserve Inventory is treated as a separate account. The Beginning Balance is allocated to each of the individual accounts, as is all subsequent funding of Replacement Reserves. These funds are "locked" in these individual accounts and are not available to fund other Projected Replacements. The calculation of Recommended Annual Funding of Replacement Reserves is a multi-step process outlined in more detail on Page CM2.

Component Method - Cumulative Receipts and Expenditures Graph



COMPONENT METHOD (cont'd)

- **Current Funding Objective.** A Current Funding Objective is calculated for each of the Projected Replacements listed in the Replacement Reserve Inventory. Replacement Cost is divided by the Normal Economic Life to determine the nominal annual contribution. The Remaining Economic Life is then subtracted from the Normal Economic Life to calculate the number of years that the nominal annual contribution should have been made. The two values are then multiplied to determine the Current Funding Objective. This is repeated for each of the 36 Projected Replacements. The total, \$265,134, is the Current Funding Objective.

For an example, consider a very simple Replacement Reserve Inventory with one Projected Replacement, a fence with a \$1,000 Replacement Cost, a Normal Economic Life of 10 years, and a Remaining Economic Life of 2 years. A contribution to Replacement Reserves of \$100 (\$1,000 + 10 years) should have been made in each of the previous 8 years (10 years - 2 years). The result is a Current Funding Objective of \$800 (8 years x \$100 per year).

- **Funding Percentage.** The Funding Percentage is calculated by dividing the Beginning Balance (\$60,000) by the Current Funding Objective (\$265,134). At Spring Breeze Community Association the Funding Percentage is 22.6 percent.
- **Allocation of the Beginning Balance.** The Beginning Balance is divided among the 36 Projected Replacements in the Replacement Reserve Inventory. The Current Funding Objective for each Projected Replacement is multiplied by the Funding Percentage and these funds are then "locked" into the account of each item.

If we relate this calculation back to our fence example, it means that the Association has not accumulated \$800 in Reserves (the Funding Objective), but rather at 22.6 percent funded, there is \$181 in the account for the fence.

- **Annual Funding.** The Recommended Annual Funding of Replacement Reserves is then calculated for each Projected Replacement. The funds allocated to the account of the Projected Replacement are subtracted from the Replacement Cost. The result is then divided by the number of years until replacement, and the result is the annual funding for each of the Projected Replacements. The sum of these is \$108,249, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2020).

In our fence example, the \$181 in the account is subtracted from the \$1,000 Total Replacement Cost and divided by the 2 years that remain before replacement, resulting in an annual deposit of \$409. Next year, the deposit remains \$409, but in the third year, the fence is replaced and the annual funding adjusts to \$100.

- **Adjustment to the Component Method for interest and inflation.** The calculations in the Replacement Reserve Analysis do not account for interest earned on Replacement Reserves, inflation, or a constant annual increase in Annual Funding of Replacement Reserves. The Component Method is a very conservative method and if the Analysis is updated regularly, adequate funding will be maintained without the need for adjustments.

Component Method Data - Years 1 through 30

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Beginning balance	\$60,000									
Recommended annual funding	\$108,249	\$67,304	\$64,551	\$62,609	\$62,119	\$62,656	\$41,199	\$39,974	\$39,829	\$39,829
Interest on reserves										
Expenditures	\$69,846	\$15,692	\$23,307	\$18,548	\$118,288	\$143,260	\$60,841	\$16,124	\$44,508	\$10,000
Year end balance	\$98,402	\$150,014	\$191,259	\$235,319	\$179,151	\$88,547	\$68,905	\$92,755	\$88,076	\$117,904
Cumulative Expenditures	\$69,846	\$85,538	\$108,846	\$127,394	\$245,682	\$388,941	\$449,782	\$465,906	\$510,415	\$520,415
Cumulative Receipts	\$168,249	\$235,553	\$300,104	\$362,713	\$424,832	\$477,488	\$518,687	\$558,661	\$598,490	\$638,319
Year	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Recommended annual funding	\$39,829	\$39,458	\$39,458	\$39,458	\$39,458	\$39,458	\$39,440	\$39,440	\$39,440	\$39,436
Interest on reserves										
Expenditures	\$23,819	\$21,876	\$69,613	\$8,624	\$14,808	\$14,800	\$45,392	\$24,387	\$41,813	\$9,664
Year end balance	\$133,914	\$151,496	\$121,340	\$152,174	\$176,823	\$201,481	\$195,529	\$210,582	\$208,209	\$237,982
Cumulative Expenditures	\$544,234	\$566,110	\$635,723	\$644,347	\$659,155	\$673,955	\$719,347	\$743,734	\$785,547	\$795,211
Cumulative Receipts	\$678,148	\$717,606	\$757,063	\$796,521	\$835,978	\$875,436	\$914,876	\$954,317	\$993,757	\$1,033,193
Year	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Recommended annual funding	\$39,436	\$39,340	\$39,340	\$39,340	\$39,340	\$39,340	\$39,340	\$39,340	\$39,340	\$39,340
Interest on reserves										
Expenditures	\$63,468	\$17,068	\$8,624	\$23,356	\$136,657	\$135,365	\$21,876	\$17,500	\$38,324	\$14,808
Year end balance	\$213,951	\$236,223	\$266,939	\$282,923	\$185,606	\$89,581	\$107,046	\$128,886	\$129,902	\$154,434
Cumulative Expenditures	\$858,679	\$875,747	\$884,371	\$907,727	\$1,044,385	\$1,179,750	\$1,201,626	\$1,219,126	\$1,257,450	\$1,272,258
Cumulative Receipts	\$1,072,630	\$1,111,970	\$1,151,310	\$1,190,651	\$1,229,991	\$1,269,331	\$1,308,672	\$1,348,012	\$1,387,352	\$1,426,693

COMPONENT METHOD ACCOUNTING SUMMARY

This Spring Breeze Community Association - Component Method Accounting Summary is an attachment to the Spring Breeze Community Association - Replacement Reserve Study dated October 8, 2019 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles.

This Summary consists of four reports, the 2020, 2021, and 2022 Component Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2020, 2021, and 2022. Each of the 36 Projected Replacements listed in the Spring Breeze Community Association Replacement Reserve Inventory has been assigned to one of 3 categories. The following information is summarized by category in each report:
 - Normal Economic Life and Remaining Economic Life of the Projected Replacements.
 - Cost of all Scheduled Replacements in each category.
 - Replacement Reserves on Deposit allocated to the category at the beginning and end of the report period.
 - Cost of Projected Replacements in the report period.
 - Recommended Replacement Reserve Funding allocated to the category during the report period as calculated by the Component Method.
- THREE-YEAR REPLACEMENT FUNDING REPORT. This report details the allocation of the \$60,000 Beginning Balance (at the start of the Study Year) and the \$240,104 of additional Replacement Reserve funding from 2020 to 2022 (as calculated in the Replacement Reserve Analysis) to each of the 36 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using the Component Method as outlined in the Replacement Reserve Analysis. The calculated data includes:
 - Identification and estimated cost of each Projected Replacement schedule in years 2020 through 2022.
 - Allocation of the \$60,000 Beginning Balance to the Projected Replacements by the Component Method.
 - Allocation of the \$240,104 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2020 through 2022, by the Component Method.

2020 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 36 Projected Replacements included in the Spring Breeze Community Association Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CM1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of \$60,000 as of the first day of the Study Year, January 1, 2020.
- Total reserve funding (including the Beginning Balance) of \$168,249 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2020 being accomplished in 2020 at a cost of \$69,846.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2020 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2020 BEGINNING BALANCE	2020 RESERVE FUNDING	2020 PROJECTED REPLACEMENTS	2020 END OF YEAR BALANCE
SITE COMPONENTS (ES) - Early Spring // (S	3 to 35 years	0 to 7 years	\$284,709	\$44,871	\$68,894	\$29,913	\$83,852
SITE COMPONENTS (cont.)	3 to 40 years	0 to 38 years	\$100,621	\$13,763	\$36,095	\$36,468	\$13,390
SITE COMPONENTS (cont.)	10 to 40 years	0 to 20 years	\$9,353	\$1,366	\$3,260	\$3,465	\$1,161

2021 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 36 Projected Replacements included in the Spring Breeze Community Association Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CM2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory.

The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$98,402 on January 1, 2021.
- Total reserve funding (including the Beginning Balance) of \$235,553 from 2020 through 2021.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2021 being accomplished in 2021 at a cost of \$15,692.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2021 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2021 BEGINNING BALANCE	2021 RESERVE FUNDING	2021 PROJECTED REPLACEMENTS	2021 END OF YEAR BALANCE
SITE COMPONENTS (ES) - Early Spring // (S	3 to 35 years	0 to 6 years	\$284,709	\$83,852	\$50,736	\$15,692	\$118,895
SITE COMPONENTS (cont.)	3 to 40 years	1 to 37 years	\$100,621	\$13,390	\$15,643		\$29,033
SITE COMPONENTS (cont.)	10 to 40 years	4 to 19 years	\$9,353	\$1,161	\$925		\$2,086

2022 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 36 Projected Replacements included in the Spring Breeze Community Association Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CM3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$150,014 on January 1, 2022.
- Total Replacement Reserve funding (including the Beginning Balance) of \$300,104 from 2020 to 2022.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2022 being accomplished in 2022 at a cost of \$23,307.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates to arrange for an update of the Replacement Reserve Study.

2022 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2022 BEGINNING BALANCE	2022 RESERVE FUNDING	2022 PROJECTED REPLACEMENTS	2022 END OF YEAR BALANCE
SITE COMPONENTS (ES) - Early Spring // (S	3 to 35 years	0 to 5 years	\$284,709	\$118,895	\$47,983	\$21,228	\$145,650
SITE COMPONENTS (cont.)	3 to 40 years	0 to 36 years	\$100,621	\$29,033	\$15,643	\$2,079	\$42,598
SITE COMPONENTS (cont.)	10 to 40 years	3 to 18 years	\$9,353	\$2,086	\$925		\$3,011

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the \$60,000 Beginning Balance, as reported by the Association and the \$240,104 of Replacement Reserve Funding calculated by the Cash Flow Method from 2020 to 2022, to the 36 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling \$60,000 on January 1, 2020.
- Replacement Reserves on Deposit totaling \$98,402 on January 1, 2021.
- Replacement Reserves on Deposit totaling \$150,014 on January 1, 2022.
- Total Replacement Reserve funding (including the Beginning Balance) of \$300,104 from 2020 to 2022.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2020 to 2022 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of \$108,846.

If any of these critical factors are inaccurate, do not use the data and please contact Miller Dodson Associates, Inc., to arrange for an update of the Replacement Reserve Study.

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2020 Reserve Funding	2020 Projected Replacements	2020 End of Year Balance	2021 Reserve Funding	2021 Projected Replacements	2021 End of Year Balance	2022 Reserve Funding	2022 Projected Replacements	2022 End of Year Balance
SITE COMPONENTS (ES) - Early Sp												
1	ES - Asphalt pavement, mill & overlay	113,081	17,913	15,861		33,774	15,861		49,636	15,861		65,497
2	ES - Asphalt pavement, seal coat	14,808		4,936		4,936	4,936		9,872	4,936	(14,808)	
3	SS - Asphalt pavement, mill & overlay	65,856	11,177	10,936		22,113	10,936		33,049	10,936		43,985
4	SS - Asphalt pavement, seal coat	8,624	651	3,987		4,637	3,987	(8,624)		2,875		2,875
5	Asphalt path, overlay (33.3%)	7,068	960	3,054		4,014	3,054	(7,068)		1,414		1,414
6	Concrete flatwork (6%)	8,116	1,837	6,279	(8,116)	(0)	1,353		1,353	1,353		2,705
7	Concrete curb, barrier (6%)	7,420	1,679	5,740	(7,420)		1,237		1,237	1,237		2,473
8	Concrete mono. curb & sidewalk (6%)	14,378	3,254	11,124	(14,378)		2,396		2,396	2,396		4,793
9	Concrete access drive swale (20%)	4,959	786	696		1,481	696		2,177	696		2,872
10	Mailbox, cluster (12 unit)	6,420	1,328	1,697		3,026	1,697		4,723	1,697	(6,420)	
11	Mailbox, cluster (8 unit)	11,880	2,304	1,915		4,220	1,915		6,135	1,915		8,050
12	Mailbox, cluster (8 unit)	13,860	2,509	1,622		4,131	1,622		5,752	1,622		7,374
13	Entrance monument, carved wood	740	134	152		285	152		437	152		588
14	Storm water drain piping and basins	7,500	339	895		1,235	895		2,130	895		3,025
SITE COMPONENTS (cont.)												
15	Wood ped. bridge,PTL structure	4,140	281	184		465	184		649	184		832
16	Wood ped. bridge, PTL railing	1,710	232	246		478	246		725	246		971
17	Wood ped. bridge, composite decking	1,788	81	107		188	107		294	107		401
18	Site steps - 6"X6" PTL timber steps	5,690	901	798		1,699	798		2,498	798		3,296
19	Site steps -6X6 PTL borders w/ pavers	11,730	1,195	958		2,152	958		3,110	958		4,068
20	Site steps -6X6 PTL borders w/ slate	6,768	1,532	5,236	(6,768)		338		338	338		677
21	Site steps -Structure w/composite clad	2,600	15	66		81	66		147	66		214
22	Site steps - Composite railing	900	10	47		57	47		104	47		151
23	Site steps -Composite decking & tread	1,000	11	52		63	52		115	52		167
24	Tree replacement (allowance)	10,000		2,500		2,500	2,500		5,000	2,500		7,500
25	Retaining Wall - 6" X 6" PTL (20%)	29,700	6,721	22,979	(29,700)		7,425		7,425	7,425		14,850
26	Retaining Wall - 4" X 4" PTL	7,808	1,414	1,599		3,012	1,599		4,611	1,599		6,209
27	Retaining Wall - 3" X 5" PTL	2,079	376	568		944	568		1,511	568	(2,079)	
28	Retaining Wall - 5" X 7" railroad tie	1,188	202	197		399	197		596	197		793
29	Retaining Wall - 2" X 10" PTL w/ cap	1,040	157	177		334	177		510	177		687
30	Retaining Wall - seg.block, reset (40%)	12,480	635	382		1,018	382		1,400	382		1,782
SITE COMPONENTS (cont.)												
31	Fence - wood spit rail (50%)	1,785	404	1,381	(1,785)		179		179	179		357
32	Fence - wood spit rail (50%)	1,785	162	271		432	271		703	271		973
33	Fence - Wood board rail (50%)	1,227	278	949	(1,227)		123		123	123		245
34	Fence - Wood board rail (50%)	1,227	111	186		297	186		483	186		669
35	Pavers - replace	2,876	309	122		431	122		554	122		676
36	Pavers - reset (33.3%)	454	103	351	(454)		45		45	45		91

1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

Over the past 40 years, the responsibility for community facilities and infrastructure around many of our homes has shifted from the local government to Community Associations. Thirty years ago, a typical new town house abutted a public street on the front and a public alley on the rear. Open space was provided by a nearby public park and recreational facilities were purchased ala carte from privately owned country clubs, swim clubs, tennis clubs, and gymnasiums. Today, 60% of all new residential construction, i.e. townhouses, single-family homes, condominiums, and cooperatives, is in Common Interest Developments (CID). In a CID, a homeowner is bound to a Community Association that owns, maintains, and is responsible for periodic replacements of various components that may include the roads, curbs, sidewalks, playgrounds, streetlights, recreational facilities, and other community facilities and infrastructure.

The growth of Community Associations has been explosive. In 1965, there were only 500 Community Associations in the United States. According to the 1990 U.S. Census, there were 130,000 Community Associations. Community Associations Institute (CAI), a national trade association, estimates there were more than 200,000 Community Associations in the year 2000, and that the number of Community Associations will continue to multiply.

The shift of responsibility for billions of dollars of community facilities and infrastructure from the local government and private sector to Community Associations has generated new and unanticipated problems. Although Community Associations have succeeded in solving many short-term problems, many Associations have failed to properly plan for the tremendous expenses of replacing community facilities and infrastructure components. When inadequate replacement reserve funding results in less than timely replacements of failing components, home owners are exposed to the burden of special assessments, major increases in Association fees, and a decline in property values.

2. REPLACEMENT RESERVE STUDY

The purpose of a Replacement Reserve Study is to provide the Association with an inventory of the common community facilities and infrastructure components that require periodic replacement, a general view of the condition of these components, and an effective financial plan to fund projected periodic replacements. The Replacement Reserve Study consists of the following:

- Replacement Reserve Study Introduction. The introduction provides a description of the property, reviews the intent of the Replacement Reserve Study, and lists documents and site evaluations upon which the Replacement Reserve Study is based.
- Section A Replacement Reserve Analysis. Many components owned by the Association have a limited life and require periodic replacement. Therefore, it is essential the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and value of the community. In conformance with American Institute of Certified Public Accountant guidelines, a Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by two generally accepted accounting methods; the Cash Flow Method and the Component Method. Miller - Dodson provides a replacement reserve recommendation based on the Cash Flow Method in Section A, and the Component Method in the Appendix of the report.
- Section B Replacement Reserve Inventory. The Replacement Reserve Inventory lists the commonly owned components within the community that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about components excluded from the Replacement Reserve Inventory whose replacement is not scheduled for funding from Replacement Reserves.

Replacement Reserve Inventory includes estimates of the normal economic life and the remaining economic life for those components whose replacement is scheduled for funding from Replacement Reserves.

- Section C Projected Annual Replacements. The Calendar of Projected Annual Replacements provides a year-by-year listing of the Projected Replacements based on the data in the Replacement Reserve Inventory.
- Section D Condition Assessment. Several of the items listed in the Replacement Reserve Inventory are discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed during our visual evaluation.
- The Appendix is provided as an attachment to the Replacement Reserve Study. Additional attachments may include supplemental photographs to document conditions at the property and additional information specific to the property cited in the Conditions Assessment (i.e. Consumer Product Safety Commission, Handbook for Public Playground Safety, information on segmental retaining walls, manufacturer recommendations for asphalt shingles or siding, etc). The Appendix also includes the Accounting Summary for the Cash Flow Method and the Component Method.

3. METHODS OF ANALYSIS

The Replacement Reserve industry generally recognizes two different methods of accounting for Replacement Reserve Analysis. Due to the difference in accounting methodologies, these methods lead to different calculated values for the Minimum Annual Contribution to the Reserves. The results of both methods are presented in this report. The Association should obtain the advice of its accounting professional as to which method is more appropriate for the Association. The two methods are:

- **Cash Flow Method.** The Cash Flow Method is sometimes referred to as the "Pooling Method." It calculates the minimum constant annual contribution to reserves (Minimum Annual Deposit) required to meet projected expenditures without allowing total reserves on hand to fall below the specified minimum level in any year.

First, the Minimum Recommended Reserve Level to be Held on Account is determined based on the age, condition, and replacement cost of the individual components. The mathematical model then allocates the estimated replacement costs to the future years in which they are projected to occur. Based on these expenditures, it then calculates the minimum constant yearly contribution (Minimum Annual Deposit) to the reserves necessary to keep the reserve balance at the end of each year above the Minimum Recommended Reserve Level to be Held on Account. The Cash Flow Analysis assumes that the Association will have authority to use all of the reserves on hand for replacements as the need occurs. This method usually results in a Minimum Annual Deposit that is less than that arrived at by the Component Method.

- **Component Method.** This method is a time tested mathematical model developed by HUD in the early 1980s, but has been generally relegated to a few States that require it by law. For the vast majority of Miller - Dodson's clients, this method is not used.

The Component Method treats each item in the replacement schedule as an individual line item budget. Generally, the Minimum Annual Contribution to Reserves is higher when calculated by the Component Method. The mathematical model for this method works as follows:

First, the total Current Objective is calculated, which is the reserve amount that would have accumulated had all of the items on the schedule been funded from initial construction at their current replacement costs. Next, the Reserves Currently on Deposit (as reported by the Association) are distributed to the components in the schedule in proportion to the Current Objective. The Minimum Annual Deposit for each component is equal to the Estimated Replacement Cost, minus the Reserves on Hand, divided by the years of life remaining.

4. REPLACEMENT RESERVE STUDY DATA

- **Identification of Reserve Components.** The Reserve Analyst has only two methods of identifying Reserve Components: (1) information provided by the Association and (2) observations made at the site. It is important that the Reserve Analyst be provided with all available information detailing the components owned by the Association. It is our policy to request such information prior to bidding on a project and to meet with the individuals responsible for maintaining the community after acceptance of our proposal. After completion of the Study, the Study should be reviewed by the Board of Directors, individuals responsible for maintaining the community, and the Association's accounting professionals. We are dependent upon the Association for correct information, documentation, and drawings.
- **Unit Costs.** Unit costs are developed using nationally published standards and estimating guides and are adjusted by state or region. In some instances, recent data received in the course of our work is used to modify these figures.

Contractor proposals or actual cost experience may be available as part of the Association records. This is useful information, which should be incorporated into your report. Please bring any such available data to our attention, preferably before the report is commenced.

- **Replacement vs. Repair and Maintenance.** A Replacement Reserve Study addresses the required funding for Capital Replacement Expenditures. This should not be confused with operational costs or cost of repairs or maintenance.

5. DEFINITIONS

Adjusted Cash Flow Analysis. Cash flow analysis adjusted to take into account annual cost increases due to inflation and interest earned on invested reserves. In this method, the annual contribution is assumed to grow annually at the inflation rate.

Annual Deposit if Reserves Were Fully Funded. Shown on the Summary Sheet A1 in the Component Method summary, this would be the amount of the Annual Deposit needed if the Reserves Currently on Deposit were equal to the Total Current Objective.

Cash Flow Analysis. See Cash Flow Method, above.

Component Analysis. See Component Method, above.

Contingency. An allowance for unexpected requirements. Roughly the same as the Minimum Recommended Reserve Level to be Held on Account used in the Cash Flow Method of analysis.

Critical Year. In the Cash Flow Method, a year in which the reserves on hand are projected to fall to the established minimum level. See Minimum Recommended Reserve Level to be Held on Account.

Current Objective. This is the reserve amount that would have accumulated had the item been funded from initial construction at its current replacement cost. It is equal to the estimated replacement cost divided by the estimated economic life, times the number of years expended (the difference between the Estimated Economic Life and the Estimated Life Left). The Total Current Objective can be thought of as the amount of reserves the Association should now have on hand based on the sum of all of the Current Objectives.

Cyclic Replacement Item. A component item that typically begins to fail after an initial period (Estimated Initial Replacement), but which will be replaced in increments over a number of years (the Estimated Replacement Cycle). The Reserve Analysis program divides the number of years in the Estimated Replacement Cycle into five equal increments. It then allocates the Estimated Replacement Cost equally over those five increments. (As distinguished from Normal Replacement Items, see below)

Estimated Economic Life. Used in the Normal Replacement Schedules. This represents the industry average number of years that a new item should be expected to last until it has to be replaced. This figure is sometimes modified by climate, region, or original construction conditions.

Estimated Economic Life Left. Used in the Normal Replacement Schedules. Number of years until the item is expected to need replacement. Normally, this number would be considered to be the difference between the Estimated Economic Life and the age of the item. However, this number must be modified to reflect maintenance practice, climate, original construction and quality, or other conditions. For the purpose of this report, this number is determined by the Reserve Analyst based on the present condition of the item relative to the actual age.

Estimated Initial Replacement. For a Cyclic Replacement Item (see above), the number of years until the replacement cycle is expected to begin.

Estimated Replacement Cycle. For a Cyclic Replacement Item, the number of years over which the remainder of the component's replacement occurs.

Minimum Annual Deposit. Shown on the Summary Sheet A1. The calculated requirement for annual contribution to reserves as calculated by the Cash Flow Method (see above).

Minimum Deposit in the Study Year. Shown on the Summary Sheet A1. The calculated requirement for contribution to reserves in the study year as calculated by the Component Method (see above).

Minimum Recommended Reserve Level to be Held on Account. Shown on the Summary Sheet A1, this number is used in the Cash Flow Method only. This is the prescribed level below which the reserves will not be allowed to fall in any year. This amount is determined based on the age, condition, and replacement cost of the individual components. This number is normally given as a percentage of the total Estimated Replacement Cost of all reserve components.

Normal Replacement Item. A component of the property that, after an expected economic life, is replaced in its entirety. (As distinguished from Cyclic Replacement Items, see above.)

Normal Replacement Schedules. The list of Normal Replacement Items by category or location. These items appear on pages designated.

Number of Years of the Study. The numbers of years into the future for which expenditures are projected and reserve levels calculated. This number should be large enough to include the projected replacement of every item on the schedule, at least once. This study covers a 40-year period.

One Time Deposit Required to Fully Fund Reserves. Shown on the Summary Sheet A1 in the Component Method summary, this is the difference between the Total Current Objective and the Reserves Currently on Deposit.

Reserves Currently on Deposit. Shown on the Summary Sheet A1, this is the amount of accumulated reserves as reported by the Association in the current year.

Reserves on Hand. Shown in the Cyclic Replacement and Normal Replacement Schedules, this is the amount of reserves allocated to each component item in the Cyclic or Normal Replacement schedules. This figure is based on the ratio of Reserves Currently on Deposit divided by the total Current Objective.

Replacement Reserve Study. An analysis of all of the components of the common property of the Association for which a need for replacement should be anticipated within the economic life of the property as a whole. The analysis involves estimation for each component of its estimated Replacement Cost, Estimated Economic Life, and Estimated Life Left. The objective of the study is to calculate a recommended annual contribution to the Association's Replacement Reserve Fund.

Total Replacement Cost. Shown on the Summary Sheet A1, this is total of the Estimated Replacement Costs for all items on the schedule if they were to be replaced once.

Unit Replacement Cost. Estimated replacement cost for a single unit of a given item on the schedule.

Unit (of Measure). Non-standard abbreviations are defined on the page of the Replacement Reserve Inventory where the item appears. The following standard abbreviations are used in this report:

EA: each FT: feet LS: lump sum PR: pair SF: square feet SY: square yard

What is a Reserve Study?
Who are we?



<https://youtu.be/m4BcOE6q3Aw>

What kind of property uses a Reserve Study?
Who are our clients?



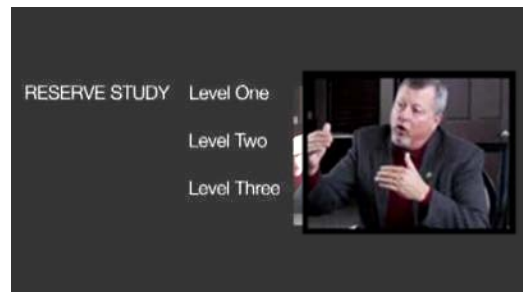
<https://youtu.be/40SodajTW1g>

Who conducts a Reserve Study?
Reserve Specialist (RS) what does this mean?



<https://youtu.be/pYSMZ013VjQ>

When should a Reserve Study be updated?
What are the different types of Reserve Studies?



<https://youtu.be/Qx8WHB9Cgnc>

What is in a Reserve Study and what is out?
Improvement vs. Component, is there a difference?



<https://youtu.be/ZfBoAEhtf3E>

What is my role as a Community Manager?
Will the report help me explain Reserves to my clients?



<https://youtu.be/1J2h7FIU3qw>

What is my role as a Board Member?
Will a Reserve Study meet my community's needs?



<https://youtu.be/aARD1B1Oa3o>

Community dues, how can a Reserve Study help?
Will a study help keep my property competitive?



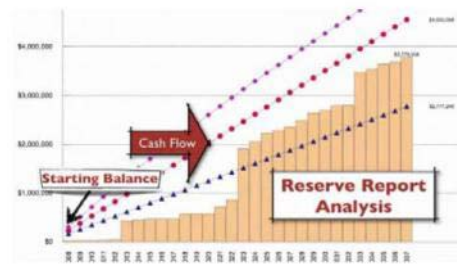
<https://youtu.be/diZfM1lyJYU>

How do I read the report?
Will I have a say in what the report contains?



<https://youtu.be/qCeVJhFf9ag>

Where do the numbers come from?
Cumulative expenditures and funding, what?



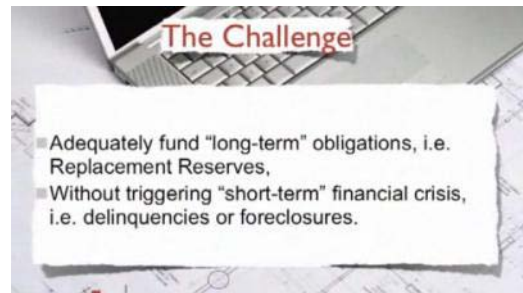
<https://youtu.be/SePdwVDvHWI>

How are interest and inflation addressed?
What should we look at when considering inflation?



<https://youtu.be/W8CDLwRlv68>

A community needs more help, where do we go?
What is a Strategic Funding Plan?



<https://youtu.be/hIxV9X1tlcA>