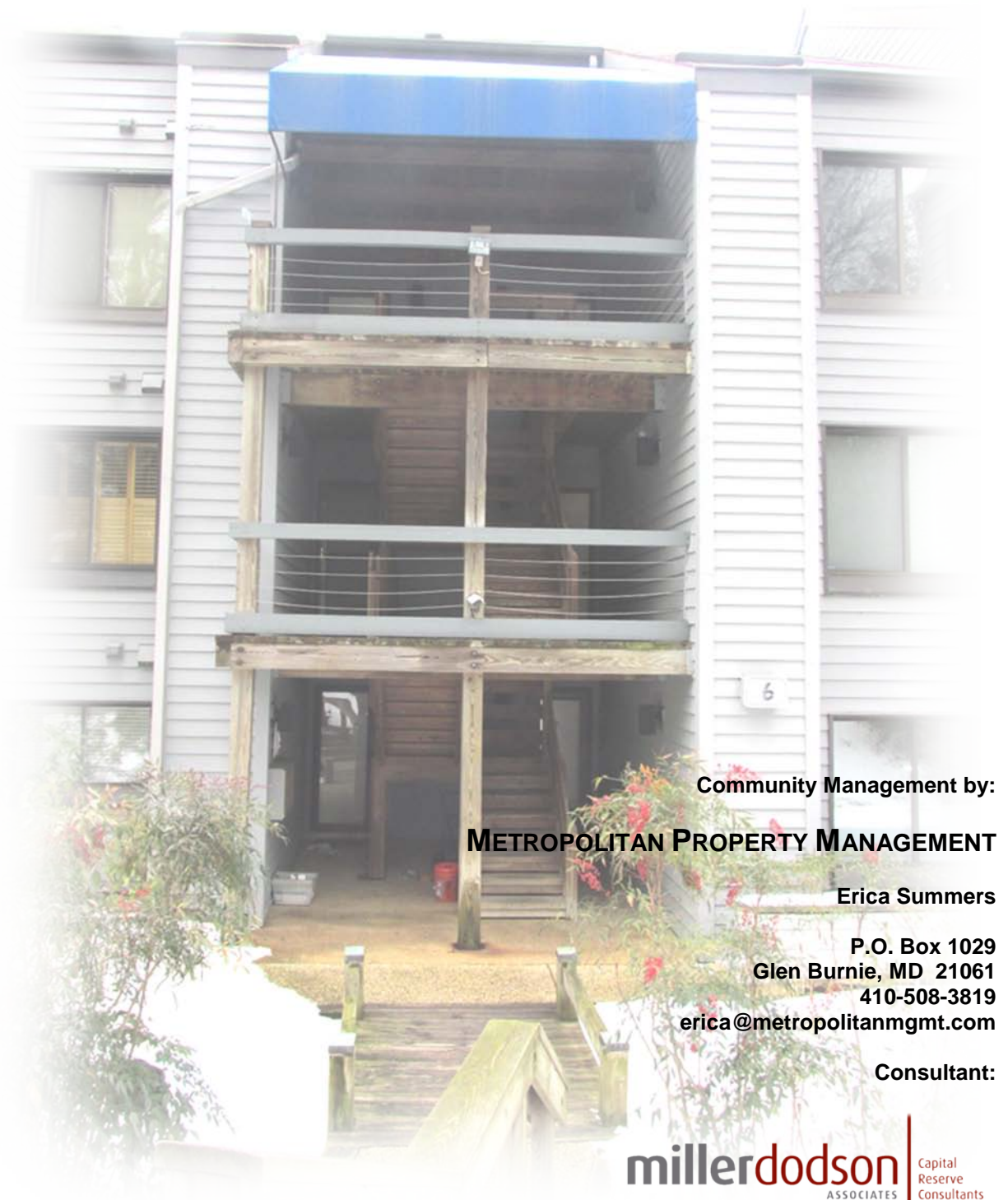


REPLACEMENT RESERVE REPORT FY 2016 SHEARWATER CONDOMINIUM ASSOCIATION



REPLACEMENT RESERVE REPORT FY 2016
SHEARWATER CONDOMINIUM ASSOCIATION

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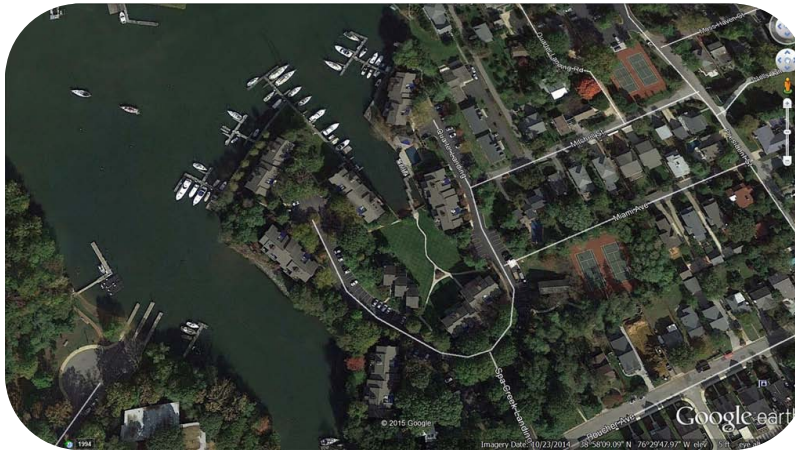
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REPLACEMENT RESERVE REPORT

SHEARWATER CONDOMINIUM ASSOCIATION

ANNAPOLIS, MARYLAND



Description. Shearwater Condominium Association is a waterfront community located on Spa Creek in Annapolis, Maryland. Constructed in 1982, the community consists of sixteen center stairwell multi-family buildings as well as one three-family townhouse building, a pool building, and a racquetball building containing ninety-three residences. The survey examined the common elements of the property, including:

- Asphalt drives and parking.
- Concrete sidewalks, steps, and curb and gutter.
- Retaining walls, fencing, and railings.
- Swimming pool and pool building.
- A racquetball building, tennis courts, and marina.
- Building exteriors and common interior utility areas.

Level of Service. This study has been performed as a Level 2 Update with Site Visit/On-Site Review as defined under the National Reserve Study Standards that have been adopted by the Community Associations Institute. As such, the component inventory is based on the study that was performed in 2010-2011 by Miller - Dodson Associates, Incorporated. The inventory was adjusted to reflect changes as provided by the Community Manager and members of the Association or adjustments were made based on the site visit and visual inspection performed by the Analyst. The included fund status and funding plan have been developed from analysis of the adjusted inventory.

Section A

Replacement Reserve Analysis

Executive Summary - A1
General Information - A2
Current Funding - A3
Cash Flow Method Funding - A4
Inflation Adjusted Funding - A5
Comments - A6

Section B

Replacement Reserve Inventory

Replacement Reserve Inventory
General information - B1
Replacement Reserve Inventory
Comments - B2
Schedule of Projected Replacements
and Exclusions - B3

Section C

Projected Annual Replacements

Projected Annual Replacements
General Information - C1
Calendar of
Projected Annual Replacements - C2

Section D

Condition Assessment

Appendix

Accounting Summary - CF1
Component Method - CM1

Overview, Standard Terms, and Definitions
Video Answers to Frequently Asked Questions

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 Shearwater Condominium 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 January 28, 2015 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.

To-Scale Drawings. Because this is a Level 2 study, site and building plans were not used in the development of this study. The Association maintains a library of site and building plans of the entire facility. We recommend the drawings be scanned into an electronic format for safe storage and ease of distribution. Upon request for a nominal fee, Miller - Dodson can provide scanning services.

Current Funding. This reserve study has been prepared for Fiscal Year 2016 covering the period from July 1, 2015 to June 30, 2016. The Replacement Reserves on deposit as of July 1, 2015 are projected to be \$470,000.00. The planned contribution for the fiscal year is \$247,800.00.

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, Erica Summers as well as Association Board of Directors members Lynn Maichle, Carol Schaake, and Larry Birch; who provided very helpful insight into the current operations of the property.

Analyst's Credentials. This study has been performed by Michael G. Hughes, who holds a Bachelor's Degree in Business Administration from Georgetown University. Mr. Hughes has extensive experience in the development and construction of over \$750,000,000 worth of residential and commercial properties. He is a licensed Realtor in the state of Maryland. Earlier he was a licensed real estate broker and a troubled-property appraiser in Columbus, Ohio where he founded a property management company and an historic restoration construction company. Currently, Mr. Hughes is a Reserve Analyst for Miller - Dodson Associates.

Respectfully submitted,



Michael G. Hughes
Reserve Analyst

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EXECUTIVE SUMMARY

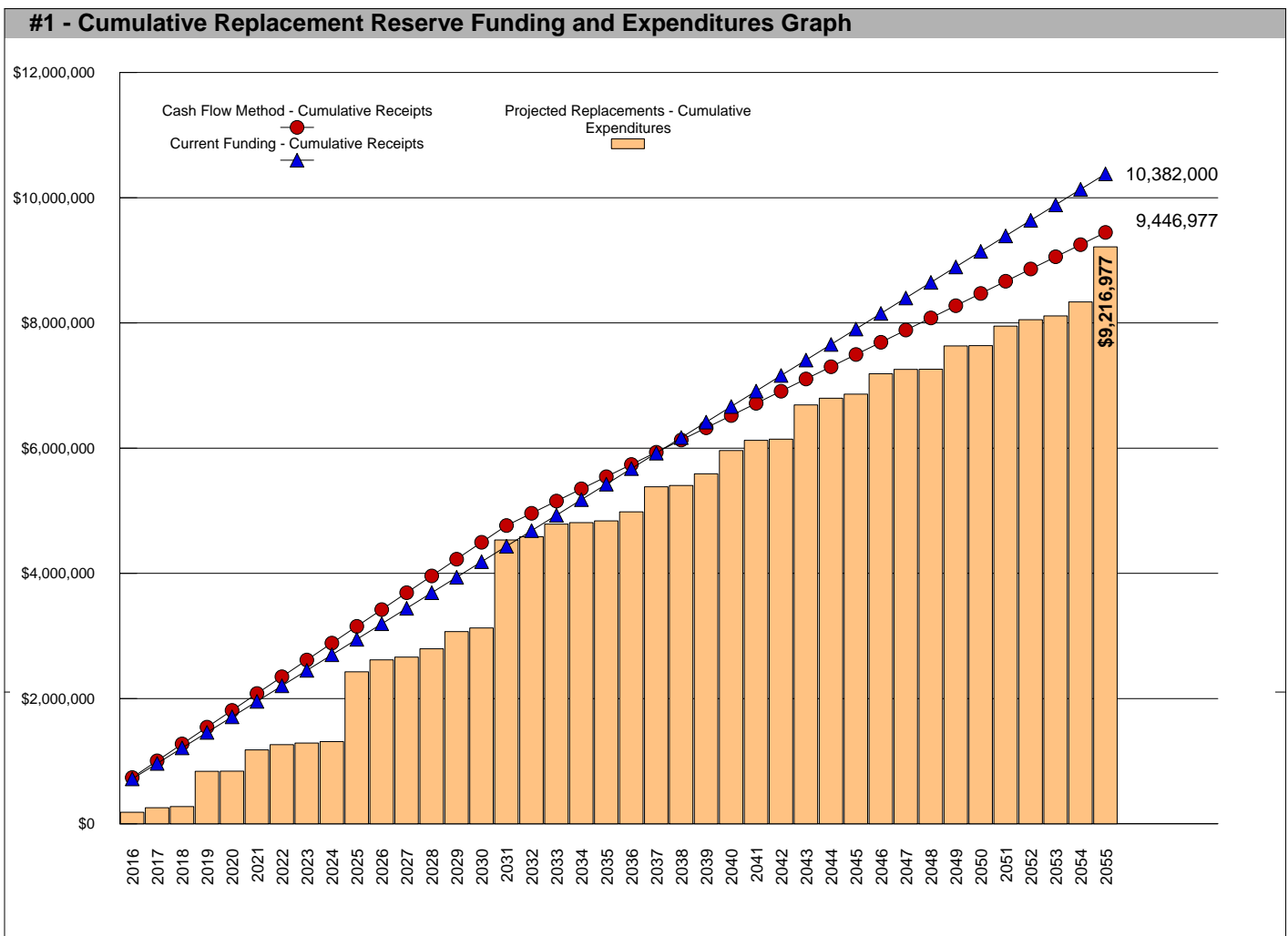
The Shearwater Condominium Association Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 103 Projected Replacements identified in the Replacement Reserve Inventory.

\$268,419 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2016

\$240.52 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.

Shearwater Condominium Association reports a Starting Balance of \$470,000 and Annual Funding totaling \$247,800. Current funding is inadequate to fund the \$9,216,977 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 \$2,157,241 making the reserve account 21.8% funded. See the Appendix for more information on this method.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Shearwater Condominium 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.

2016 | STUDY YEAR

The Association reports that their accounting year begins on July 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on July 1, 2015.

40 Years | STUDY PERIOD

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

\$470,000 | STARTING BALANCE

The Association reports Replacement Reserves on Deposit totaling \$470,000 at the start of the Study Year.

Level Two | LEVEL OF SERVICE

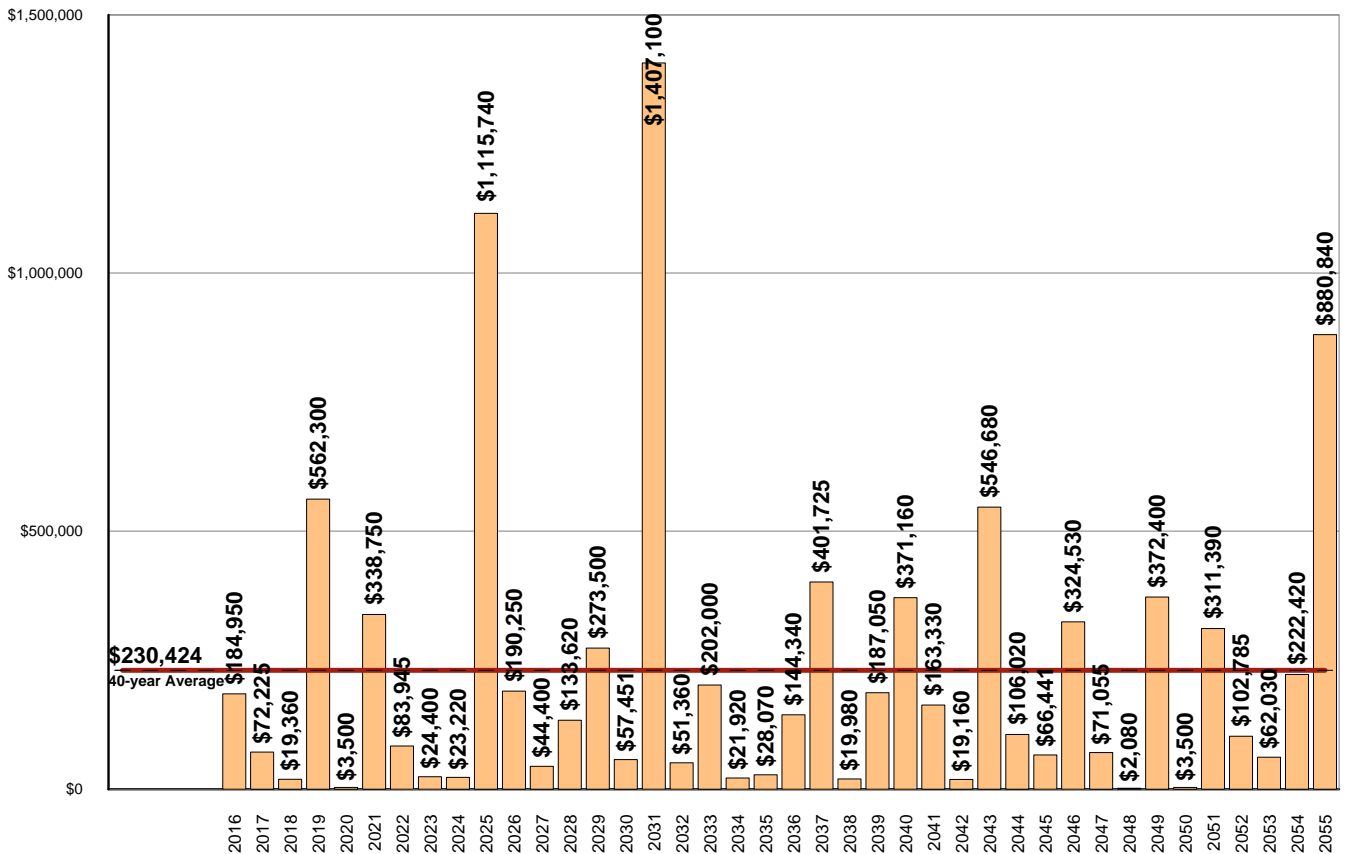
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

\$9,216,977 | REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS

The Shearwater Condominium Association Replacement Reserve Inventory identifies 103 items that will require period replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be \$9,216,977 over the 40-year Study Period. The Projected Replacements are divided into 17 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 \$230,424. 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 \$9,216,977 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	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Starting Balance	\$470,000									
Projected Replacements	(\$184,950)	(\$72,225)	(\$19,360)	(\$562,300)	(\$3,500)	(\$338,750)	(\$83,945)	(\$24,400)	(\$23,220)	(\$1,115,740)
Annual Deposit	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800
End of Year Balance	\$532,850	\$708,425	\$936,865	\$622,365	\$866,665	\$775,715	\$939,570	\$1,162,970	\$1,387,550	\$519,610
Cumulative Expenditures	(\$184,950)	(\$257,175)	(\$276,535)	(\$838,835)	(\$842,335)	(\$1,181,085)	(\$1,265,030)	(\$1,289,430)	(\$1,312,650)	(\$2,428,390)
Cumulative Receipts	\$717,800	\$965,600	\$1,213,400	\$1,461,200	\$1,709,000	\$1,956,800	\$2,204,600	\$2,452,400	\$2,700,200	\$2,948,000
Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Projected Replacements	(\$190,250)	(\$44,400)	(\$133,620)	(\$273,500)	(\$57,451)	(\$1,407,100)	(\$51,360)	(\$202,000)	(\$21,920)	(\$28,070)
Annual Deposit	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800
End of Year Balance	\$577,160	\$780,560	\$894,740	\$869,040	\$1,059,389	(\$99,911)	\$96,529	\$142,329	\$368,209	\$587,939
Cumulative Expenditures	(\$2,618,640)	(\$2,663,040)	(\$2,796,660)	(\$3,070,160)	(\$3,127,611)	(\$4,534,711)	(\$4,586,071)	(\$4,788,071)	(\$4,809,991)	(\$4,838,061)
Cumulative Receipts	\$3,195,800	\$3,443,600	\$3,691,400	\$3,939,200	\$4,187,000	\$4,434,800	\$4,682,600	\$4,930,400	\$5,178,200	\$5,426,000
Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Projected Replacements	(\$144,340)	(\$401,725)	(\$19,980)	(\$187,050)	(\$371,160)	(\$163,330)	(\$19,160)	(\$546,680)	(\$106,020)	(\$66,441)
Annual Deposit	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800
End of Year Balance	\$691,399	\$537,474	\$765,294	\$826,044	\$702,684	\$787,154	\$1,015,794	\$716,914	\$858,694	\$1,040,053
Cumulative Expenditures	(\$4,982,401)	(\$5,384,126)	(\$5,404,106)	(\$5,591,156)	(\$5,962,316)	(\$6,125,646)	(\$6,144,806)	(\$6,691,486)	(\$6,797,506)	(\$6,863,947)
Cumulative Receipts	\$5,673,800	\$5,921,600	\$6,169,400	\$6,417,200	\$6,665,000	\$6,912,800	\$7,160,600	\$7,408,400	\$7,656,200	\$7,904,000
Year	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
Projected Replacements	(\$324,530)	(\$71,055)	(\$2,080)	(\$372,400)	(\$3,500)	(\$311,390)	(\$102,785)	(\$62,030)	(\$222,420)	(\$880,840)
Annual Deposit	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800	\$247,800
End of Year Balance	\$963,323	\$1,140,068	\$1,385,788	\$1,261,188	\$1,505,488	\$1,441,898	\$1,586,913	\$1,772,683	\$1,798,063	\$1,165,023
Cumulative Expenditures	(\$7,188,477)	(\$7,259,532)	(\$7,261,612)	(\$7,634,012)	(\$7,637,512)	(\$7,948,902)	(\$8,051,687)	(\$8,113,717)	(\$8,336,137)	(\$9,216,977)
Cumulative Receipts	\$8,151,800	\$8,399,600	\$8,647,400	\$8,895,200	\$9,143,000	\$9,390,800	\$9,638,600	\$9,886,400	\$10,134,200	\$10,382,000

EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of \$470,000 & annual funding of \$247,800), 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 103 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of \$247,800 throughout the 40-year Study Period.

Annual Funding of \$247,800 is approximately 92 percent of the \$268,419 recommended Annual Funding calculated by the Cash Flow Method for 2016, the Study Year.

Evaluation of the 103 Projected Replacements calculates an average annual expenditure over the next 40 years of \$230,424. Annual funding of \$247,800 is 108 percent of the average annual expenditure.

Our calculations identify a funding shortfall of \$-99,911 occurring in 2031. The expenditures and funding levels that result the shortfall 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 \$9,216,977 of Projected Replacements scheduled in the Replacement Reserve Inventory over the Study Period.

CASH FLOW METHOD FUNDING

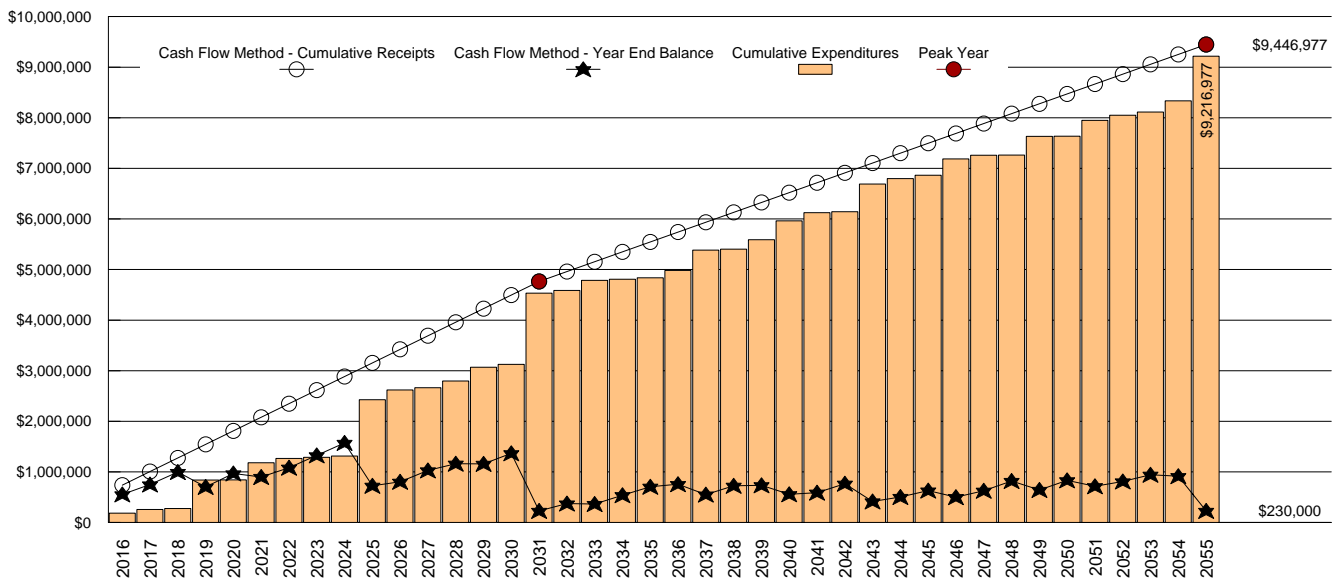
\$268,419 RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2016

\$240.52 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 2031 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of \$4,534,711 of replacements from 2016 to 2031. Recommended funding declines from \$268,419 in 2031 to \$195,093 in 2032. Peak Years are identified in Chart 4 and Table 5.
- **Minimum Balance.** The calculations assume a Minimum Balance of \$230,000 in Replacement Reserves. This is approx. 12 months of average expenditures based on the \$230,424, 40-year average annual expenditure.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for \$9,216,977 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2055 and in 2055, 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	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Starting Balance	\$470,000									
Projected Replacements	(\$184,950)	(\$72,225)	(\$19,360)	(\$562,300)	(\$3,500)	(\$338,750)	(\$83,945)	(\$24,400)	(\$23,220)	(\$1,115,740)
Annual Deposit	\$268,419	\$268,419	\$268,419	\$268,419	\$268,419	\$268,419	\$268,419	\$268,419	\$268,419	\$268,419
End of Year Balance	\$553,469	\$749,664	\$998,723	\$704,843	\$969,762	\$899,432	\$1,083,906	\$1,327,925	\$1,573,125	\$725,804
Cumulative Expenditures	\$184,950	\$257,175	\$276,535	\$838,835	\$842,335	\$1,181,085	\$1,265,030	\$1,289,430	\$1,312,650	\$2,428,390
Cumulative Receipts	\$738,419	\$1,006,839	\$1,275,258	\$1,543,678	\$1,812,097	\$2,080,517	\$2,348,936	\$2,617,355	\$2,885,775	\$3,154,194
Year	2026	2027	2028	2029	2030	1st Peak - 2031	2032	2033	2034	2035
Projected Replacements	(\$190,250)	(\$44,400)	(\$133,620)	(\$273,500)	(\$57,451)	(\$1,407,100)	(\$51,360)	(\$202,000)	(\$21,920)	(\$28,070)
Annual Deposit	\$268,419	\$268,419	\$268,419	\$268,419	\$268,419	\$268,419	\$195,093	\$195,093	\$195,093	\$195,093
End of Year Balance	\$803,974	\$1,027,993	\$1,162,793	\$1,157,712	\$1,368,681	\$230,000	\$373,733	\$366,825	\$539,998	\$707,021
Cumulative Expenditures	(\$2,618,640)	(\$2,663,040)	(\$2,796,660)	(\$3,070,160)	(\$3,127,611)	(\$4,534,711)	(\$4,586,071)	(\$4,788,071)	(\$4,809,991)	(\$4,838,061)
Cumulative Receipts	\$3,422,614	\$3,691,033	\$3,959,453	\$4,227,872	\$4,496,292	\$4,764,711	\$4,959,804	\$5,154,896	\$5,349,989	\$5,545,082
Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Projected Replacements	(\$144,340)	(\$401,725)	(\$19,980)	(\$187,050)	(\$371,160)	(\$163,330)	(\$19,160)	(\$546,680)	(\$106,020)	(\$66,441)
Annual Deposit	\$195,093	\$195,093	\$195,093	\$195,094	\$195,094	\$195,094	\$195,094	\$195,094	\$195,095	\$195,095
End of Year Balance	\$757,774	\$551,142	\$726,256	\$734,299	\$558,233	\$589,997	\$765,931	\$414,346	\$503,420	\$632,074
Cumulative Expenditures	(\$4,982,401)	(\$5,384,126)	(\$5,404,106)	(\$5,591,156)	(\$5,962,316)	(\$6,125,646)	(\$6,144,806)	(\$6,691,486)	(\$6,797,506)	(\$6,863,947)
Cumulative Receipts	\$5,740,175	\$5,935,268	\$6,130,362	\$6,325,455	\$6,520,549	\$6,715,643	\$6,910,737	\$7,105,832	\$7,300,926	\$7,496,021
Year	2046	2047	2048	2049	2050	2051	2052	2053	2054	2nd Peak - 2055
Projected Replacements	(\$324,530)	(\$71,055)	(\$2,080)	(\$372,400)	(\$3,500)	(\$311,390)	(\$102,785)	(\$62,030)	(\$222,420)	(\$880,840)
Annual Deposit	\$195,095	\$195,095	\$195,095	\$195,096	\$195,096	\$195,096	\$195,096	\$195,096	\$195,096	\$195,096
End of Year Balance	\$502,639	\$626,679	\$819,695	\$642,390	\$833,986	\$717,692	\$810,002	\$943,068	\$915,744	\$230,000
Cumulative Expenditures	(\$7,188,477)	(\$7,259,532)	(\$7,261,612)	(\$7,634,012)	(\$7,637,512)	(\$7,948,902)	(\$8,051,687)	(\$8,113,717)	(\$8,336,137)	(\$9,216,977)
Cumulative Receipts	\$7,691,116	\$7,886,211	\$8,081,307	\$8,276,402	\$8,471,498	\$8,666,594	\$8,861,689	\$9,056,785	\$9,251,881	\$9,446,977

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.

\$268,419 2016 - CASH FLOW METHOD RECOMMENDED FUNDING

The 2016 Study Year calculations have been made using current replacement costs (see Page B2), modified by the Analyst for any project specific conditions.

\$282,135 2017 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2017 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$553,469 on July 1, 2016.
- All 2016 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$184,950.
- Construction Cost Inflation of 4.50 percent in 2016.

The \$282,135 inflation adjusted funding in 2017 is a 5.11 percent increase over the non-inflation adjusted 2017 funding of \$268,419.

\$297,932 2018 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2018 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$760,130 on July 1, 2017.
- All 2017 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$75,475.
- Construction Cost Inflation of 4.50 percent in 2017.

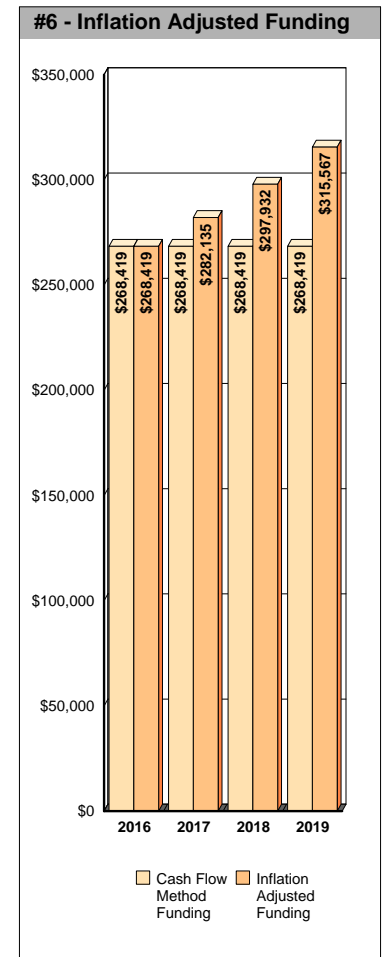
The \$297,932 inflation adjusted funding in 2018 is a 10.99 percent increase over the non-inflation adjusted 2018 funding of \$268,419.

\$315,567 2019 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2019 funding based on three assumptions;

- Replacement Reserves on Deposit totaling \$1,036,920 on July 1, 2018.
- All 2018 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than \$21,142.
- Construction Cost Inflation of 4.50 percent in 2018.

The \$315,567 inflation adjusted funding in 2019 is a 17.56 percent increase over the non-inflation adjusted funding of \$268,419.



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 2017, 2018 and 2019 inflation adjusted funding calculations above, the 4.50 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 2016, based on a 1.00 percent interest rate, we estimate the Association may earn \$5,117 on an average balance of \$511,735, \$6,568 on an average balance of \$656,800 in 2017, and \$8,985 on \$898,525 in 2018. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2016 funding from \$268,419 to \$263,302 (a 1.91 percent reduction), \$282,135 to \$275,567 in 2017 (a 2.33 percent reduction), and \$297,932 to \$288,947 in 2018 (a 3.02 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- Shearwater Condominium Association has 93 units. The type of property is a condominium 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 103 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

Shearwater Condominium Association - Replacement Reserve Inventory identifies 146 items. Two types of items are identified, Projected Replacements and Excluded Items:

- **PROJECTED REPLACEMENTS.** 103 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 \$4,186,081. Replacements totaling \$6,863,947 are scheduled in the Replacement Reserve Inventory over the 30-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 146 items included in the Shearwater Condominium Association Replacement Reserve Inventory are divided into 17 major categories. Each category is printed on a separate page, Pages B3 to B18.
- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level Two - Update (with site visit and on-site review), as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

Level II Studies are based entirely on the component inventory from a prior study. This information is adjusted to reflect changes to the inventory that are provided by the Association, and the quantities are adjusted accordingly from field measurement and/or quantity takeoffs from to-scale drawings that are made available to us. The condition of all components is ascertained from a site visit and the visual inspection of each component by the analyst. The Remaining Economic Life and replacement cost of components are provided based in part on these observations. The fund status and Funding Plan are derived from analysis of this data.

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- **INVENTORY DATA.** Each of the 103 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 COMPONENT PROJECTED REPLACEMENTS							
ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
1	Community signs	ea	2	\$1,500.00	15	5	\$3,000
2	Asphalt pvmt, seal coat	sf	57,300	\$0.20	6	none	\$11,460
3	Asphalt pvmt, mill & overlay	sf	57,300	\$1.70	18	12	\$97,410
4	Concrete curb (20%)	lf	260	\$34.00	60	none	\$8,840
5	Concrete curb (20%)	lf	260	\$34.00	60	18	\$8,840
6	Concrete curb (20%)	lf	260	\$34.00	60	36	\$8,840
7	Concrete steps to basements	lf	637	\$240.00	60	27	\$152,880
8	Concrete flatwork, exp agg (5%)	sf	450	\$10.00	50	none	\$4,500
9	Concrete flatwork, exp agg (5%)	sf	450	\$10.00	50	5	\$4,500
10	Concrete flatwork, exp agg (5%)	sf	450	\$10.00	50	10	\$4,500
11	Concrete flatwork, exp agg (5%)	sf	450	\$10.00	50	15	\$4,500
12	Concrete flatwork, exp agg (5%)	sf	450	\$10.00	50	20	\$4,500
13	Concrete flatwork, exp agg (5%)	sf	450	\$10.00	50	25	\$4,500
14	Concrete flatwork, exp agg (5%)	sf	450	\$10.00	50	30	\$4,500
15	Concrete flatwork, exp agg (5%)	sf	450	\$10.00	50	35	\$4,500
16	Concrete flatwork, exp agg (5%)	sf	450	\$10.00	50	40	\$4,500
17	Wood step	lf	2,700	\$12.00	30	5	\$32,400
SITE COMPONENT - Replacement Costs - Subtotal							\$364,170

SITE COMPONENT COMMENTS	
<ul style="list-style-type: none"> ● 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. 	

SITE COMPONENT (cont.)

PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
18	Site lighting, heads	ea	45	\$225.00	15	6	\$10,125
19	Site Lighting, wood posts	ea	45	\$1,000.00	30	6	\$45,000
20	Landscape lights	ea	125	\$110.00	15	5	\$13,750
21	Brick pavers, sand set, re-set 10%	sf	180	\$3.50	6	19	\$630
22	Brick pavers, sand set, replace	sf	1,800	\$15.00	36	5	\$27,000
23	Segmental retaining walls, re-set 10%	sf	520	\$35.00	10	40	\$18,200
24	Segmental retaining walls, replace	sf	5,200	\$45.00	100	5	\$234,000
25	Entry gate and system	ls	1	\$30,000.00	20	none	\$30,000
26	Aluminum fencing	lf	450	\$55.00	30	12	\$24,750
27	Wood fencing	lf	240	\$32.00	20	2	\$7,680
28	Wood trellis	sf	240	\$11.00	25	5	\$2,640
29	Wood shed	ea	1	\$8,000.00	35	15	\$8,000
30	Oyster shell path, refurb	sf	3,000	\$1.90	10	5	\$5,700
SITE COMPONENT (cont.) - Replacement Costs - Subtotal							\$427,475

SITE COMPONENT (cont.)

COMMENTS

- The "Brick pavers, sand set, replace" component is funded to coincide with the "Wood step" replacement in 2021
- When the wood retaining walls and the wood steps are replaced, they are funded for replacement with "Segmental retaining walls" for longevity and cost saving purposes.
- Revision: per the Association, the Entry gate components are changed to the single one shown above.

SITE COMPONENT (cont.)

PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
31	Water laterals	ea	2	\$8,000.00	10	17	\$16,000
32	Sanitary laterals	ea	2	\$7,000.00	10	17	\$14,000
33	Bldg piping, water supply (10% allow)	ls	1	\$45,000.00	10	none	\$45,000
34	Bldg piping, sanitary (10% allowance)	ls	1	\$36,000.00	10	15	\$36,000
35	Stormwater mgmt (10% allowance)	ls	1	\$7,000.00	10	17	\$7,000
36	Irrigation controls	ls	1	\$10,000.00	20	16	\$10,000

SITE COMPONENT (cont.) - Replacement Costs - Subtotal \$128,000

SITE COMPONENT (cont.)

COMMENTS

- Per the Association, an irrigation system was installed in 2011. Funding is for the replacement of the long-life components such as controllers. Excluded are the subsurface pipe, control wiring, valves, and heads.

**BUILDING EXTERIOR, GENERAL
 PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
37	Cedar siding/trim (20% repl w/ painting)	sf	24,800	\$14.00	6	3	\$347,200
38	Building lights (10% allowance)	ea	40	\$110.00	5	1	\$4,400
39	Utility and common doors	ea	83	\$650.00	30	none	\$53,950
40	Closet doors @ balcony decks	ea	21	\$650.00	30	29	\$13,650

BUILDING EXTERIOR, GENERAL - Replacement Costs - Subtotal \$419,200

**BUILDING EXTERIOR, GENERAL
 COMMENTS**

- It is assumed that 20% of the cedar siding and trim is replaced every six years during painting and caulking cycles. This is being done to cover anticipated near-term needs. The topic needs re-evaluated at the next study update. Per the Association, \$82,890 was spent in siding replacement in FY 2012-2013.
- The "Closet doors @ balcony decks" were replaced with the deck replacement.

BUILDING EXTERIOR, CONDO'S (C)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
41	C Shingle roofing (25 yr.)	sf	46,000	\$4.80	25	13	\$220,800
42	C Gutter & downspout - oversize	ft	6,200	\$8.50	30	13	\$52,700
43	C Flat roofing, P2	sf	570	\$42.00	10	9	\$23,940
44	C Flat roofing, P3	sf	715	\$42.00	10	10	\$30,030
45	C Awning refabric	sf	2,160	\$6.00	10	6	\$12,960
46	C Awning reframe	sf	2,160	\$10.00	20	8	\$21,600
47	C Chimney caps	ea	14	\$1,800.00	30	3	\$25,200
48	C Entry stair, front railings	ft	420	\$90.00	30	15	\$37,800
49	C Entry stair, treads	ea	450	\$160.00	30	15	\$72,000
50	C Entry stair, decking	sf	13,000	\$15.00	30	15	\$195,000
51	C Entry stair, structural repair	sf	13,000	\$35.00	30	15	\$455,000
52	C Deck, railings	ft	1,900	\$90.00	20	3	\$171,000
53	C Deck, decking (20% allowance)	sf	2,720	\$31.25	10	15	\$85,000
54	C Deck, structural repair (20% allow)	sf	2,720	\$25.00	20	15	\$68,000
55	C Mailboxes, cluster	ea	90	\$160.00	35	10	\$14,400

BUILDING EXTERIOR, CONDO'S (C) - Replacement Costs - Subtotal \$1,485,430

BUILDING EXTERIOR, CONDO'S (C)
COMMENTS

- The "Deck Replacements with Normal Economic lives of 100 years," shown in the earlier study were replaced in 2014. Therefore these components were removed from this update study.
- For Deck and Entry Stair, Structural repair, we recommend evaluating the current details/configurations and implementing alterations to improve the long term durability of these components. Per the Analyst's inspection of the "Entry stair" components, it is recommended this funding begin in 2021.
- Per the Association the "Shingle roofing" was replaced in 2004 with a 25-year shingle.
- Per the Association \$30,000 was spent on flat roofs in 2011.

BUILDING EXTERIOR, TOWNHOMES (TH)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
56	TH Shingle roofing (25 yr.)	sf	4,100	\$4.80	25	10	\$19,680
57	TH Gutter & downspout	lf	350	\$6.00	30	10	\$2,100
58	TH Chimney caps	ea	3	\$950.00	25	3	\$2,850
59	TH Deck & entry, railings	lf	190	\$75.00	20	3	\$14,250
60	TH Deck & entry, decking	sf	800	\$9.50	10	15	\$7,600
61	TH Deck & entry, structural replace	sf	800	\$25.00	20	15	\$20,000

BUILDING EXTERIOR, TOWNHOMES (TH) - Replacement Costs - Subtotal \$66,480

BUILDING EXTERIOR, TOWNHOMES (TH)
COMMENTS

- Per the Association the "Shingle roofing" was replaced in 2000 with a 25-year shingle.

**POOL BUILDING (PB) & POOL
 PROJECTED REPLACEMENTS**

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
62	PB Roofing (25 yr.)	sf	1,000	\$4.00	25	2	\$4,000
63	PB Gutter & downspout	ls	1	\$1,000.00	30	2	\$1,000
64	PB Doors	ea	6	\$650.00	25	none	\$3,900
65	PB Restrooms	ea	2	\$5,000.00	15	none	\$10,000
66	PB Water heater	ea	1	\$1,100.00	10	none	\$1,100
67	Pool structure	sf	1,230	\$65.00	60	28	\$79,950
68	Pool white coat	sf	1,230	\$10.00	15	7	\$12,300
69	Pool coping & waterline tile	ls	1	\$8,300.00	15	14	\$8,300
70	Pool cover	sf	1,350	\$1.20	10	8	\$1,620
71	Pool deck, concrete	sf	1,100	\$11.00	30	7	\$12,100
72	Pool deck railing	lf	100	\$93.00	30	15	\$9,300
73	Pool deck, wood synthetic decking	sf	900	\$15.00	30	15	\$13,500
74	Pool deck, wood structure	sf	900	\$25.00	30	15	\$22,500
75	Pool deck, wood structure refastening	ls	1	\$5,000.00	30	none	\$5,000
76	Pool pump	ea	1	\$1,200.00	10	none	\$1,200
77	Pool filter system	ea	1	\$1,800.00	20	3	\$1,800
78	Pool furniture	ls	1	\$1,500.00	5	4	\$1,500
79	Pool fencing	lf	180	\$32.00	15	5	\$5,760
80	Pool wood retaining wall	sf	250	\$65.00	45	17	\$16,250
POOL BUILDING (PB) & POOL - Replacement Costs - Subtotal							\$211,080

**POOL BUILDING (PB) & POOL
 COMMENTS**

- Revision: per the Association, the coping and waterline tile replacement occurred in 2014 at a cost of \$8,300. Additionally, the whitecoat component is separated and the coping & waterline tile components are combined. Because of this, the Remaining Economic Life entries for the structure, whitecoat, and the combined coping & waterline tile components are configured accordingly.
- Revision: per the Association, the Remaining Economic Life entries of the "Doors" and the "Restrooms" are modified.

RACQUETBALL (RB) & COURTS
 PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
81	RB Roofing	sf	1,400	\$4.00	25	2	\$5,600
82	RB Gutters & downspouts	lf	180	\$6.00	30	2	\$1,080
83	RB Windows	sf	45	\$45.00	30	1	\$2,025
84	RB Exterior doors	ea	2	\$900.00	25	1	\$1,800
85	RB Refurbish interior	sf	1,200	\$20.00	15	1	\$24,000
86	RB Heat pump	ea	1	\$10,000.00	15	10	\$10,000
87	Tennis court - color coat	ea	2	\$5,000.00	5	none	\$10,000
88	Tennis court - asphalt surface	ea	2	\$18,000.00	20	10	\$36,000
89	Tennis court - posts & footing	pr	2	\$2,600.00	20	10	\$5,200
90	Tennis court - fencing	lf	460	\$24.00	20	10	\$11,040

RACQUETBALL (RB) & COURTS - Replacement Costs - Subtotal \$106,745

RACQUETBALL (RB) & COURTS
 COMMENTS

- The Siding is shown under the topic of "Building Exterior, General."

MARINA
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
91	Wood boardwalk, deck & structure	sf	5,800	\$25.00	15	9	\$145,000
92	Wood bulkhead	lf	875	\$170.00	30	17	\$148,750
93	Wood bulkhead	lf	260	\$110.00	30	14	\$28,600
94	Pier decking	sf	6,000	\$11.00	15	9	\$66,000
95	Pier structure	sf	6,000	\$25.00	30	9	\$150,000
96	Pilings	ea	261	\$900.00	45	9	\$234,900
97	Kayak ramp	ea	1	\$17,051.00	15	14	\$17,051
98	Kayak rack	ls	1	\$2,000.00	5	4	\$2,000
99	Floating docks structure & floats	sf	900	\$18.00	15	9	\$16,200
100	Service pedestals	ea	65	\$600.00	15	9	\$39,000
101	Electrical distribution system	ls	1	\$50,000.00	15	9	\$50,000
102	Dockside water lines	ls	1	\$40,000.00	15	9	\$40,000
103	Dredging (20% allowance)	ls	1	\$40,000.00	10	1	\$40,000
MARINA - Replacement Costs - Subtotal							\$977,501

MARINA
COMMENTS

- Revision: per the Association the marina entries are added and updated placeholders awaiting the inspection report.
- Revision: per the Association, the "Kayak ramp" component information is modified with current information

VALUATION EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Miscellaneous signage	ls	1				EXCLUDED
	Bench	ls	1				EXCLUDED
	Tennis court nets	ls	1				EXCLUDED
	Hose bib	ls	1				EXCLUDED
	Interior doors	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 (\$)
	Building foundations	ls	1				EXCLUDED
	Concrete floor slabs (interior)	ls	1				EXCLUDED
	Wall, floor, & roof structure	ls	1				EXCLUDED
	Electrical wiring	ls	1				EXCLUDED
	Water piping at common facilities	ls	1				EXCLUDED
	Waste piping at common facilities	ls	1				EXCLUDED
	Stainless steel pool fixtures	ls	1				EXCLUDED
	Riprap	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.
- 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	Is	1				EXCLUDED
	Sanitary sewers serving one unit	Is	1				EXCLUDED
	Electrical wiring serving one unit	Is	1				EXCLUDED
	Cable TV service serving one unit	Is	1				EXCLUDED
	Telephone service serving one unit	Is	1				EXCLUDED
	Unit windows	Is	1				EXCLUDED
	Unit doors	Is	1				EXCLUDED
	Unit skylights	Is	1				EXCLUDED
	Unit interior	Is	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
	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
	Crack sealing of asphalt pavement	ls	1				EXCLUDED
	Painting of curbs	ls	1				EXCLUDED
	Striping of parking spaces	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
	Janitorial service	ls	1				EXCLUDED
	Repair services	ls	1				EXCLUDED
	Partial replacements	ls	1				EXCLUDED
	Capital improvements	ls	1				EXCLUDED
	Irrigation system heads	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, stormwater mgmt.	ls	1				EXCLUDED
	Sewage pumping station, city	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 Boucher Ave., Madison St., and adjacent properties.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

IRRIGATION SYSTEM EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST (\$)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST (\$)
	Subsurface irrigation pipe	ls	1				EXCLUDED
	Subsurface irrigation control wiring	ls	1				EXCLUDED
	Irrigation heads	ls	1				EXCLUDED

IRRIGATION SYSTEM EXCLUSIONS

COMMENTS

- Irrigation System Exclusions. We have assumed that the maintenance, repair, and periodic replacement of the components of the extensive irrigation systems at the property will not be funded from Replacement Reserves. These systems should be inspected each spring when the systems are brought on line and each fall when they are winterized. Repairs/replacements should be made in conjunction with these inspections.

PROJECTED ANNUAL REPLACEMENTS GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 103 Projected Replacements in the Shearwater Condominium Assoc 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 thirty 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 Shearwater Condominium 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 1 TO 6

2016 - STUDY YEAR			2017 - YEAR 2			2018 - YEAR 3		
Item		\$	Item		\$	Item		\$
2	Asphalt pvmt, seal coat	\$11,460	38	Building lights (10% allowan	\$4,400	27	Wood fencing	\$7,680
4	Concrete curb (20%)	\$8,840	83	RB Windows	\$2,025	62	PB Roofing (25 yr.)	\$4,000
8	Concrete flatwork, exp agg (	\$4,500	84	RB Exterior doors	\$1,800	63	PB Gutter & downspout	\$1,000
25	Entry gate and system	\$30,000	85	RB Refurbish interior	\$24,000	81	RB Roofing	\$5,600
33	Bldg piping, water supply (1	\$45,000	103	Dredging (20% allowance)	\$40,000	82	RB Gutters & downspouts	\$1,080
39	Utility and common doors	\$53,950						
64	PB Doors	\$3,900						
65	PB Restrooms	\$10,000						
66	PB Water heater	\$1,100						
75	Pool deck, wood structure re	\$5,000						
76	Pool pump	\$1,200						
87	Tennis court - color coat	\$10,000						
Total Scheduled Replacements		\$184,950	Total Scheduled Replacements		\$72,225	Total Scheduled Replacements		\$19,360
2019 - YEAR 4			2020 - YEAR 5			2021 - YEAR 6		
Item		\$	Item		\$	Item		\$
37	Cedar siding/trim (20% repl	\$347,200	78	Pool furniture	\$1,500	1	Community signs	\$3,000
47	C Chimney caps	\$25,200	98	Kayak rack	\$2,000	9	Concrete flatwork, exp agg (	\$4,500
52	C Deck, railings	\$171,000				17	Wood step	\$32,400
58	TH Chimney caps	\$2,850				20	Landscape lights	\$13,750
59	TH Deck & entry, railings	\$14,250				22	Brick pavers, sand set, repla	\$27,000
77	Pool filter system	\$1,800				24	Segmental retaining walls, r	\$234,000
						28	Wood trellis	\$2,640
						30	Oyster shell path, refurb	\$5,700
						79	Pool fencing	\$5,760
						87	Tennis court - color coat	\$10,000
Total Scheduled Replacements		\$562,300	Total Scheduled Replacements		\$3,500	Total Scheduled Replacements		\$338,750

PROJECTED REPLACEMENTS - YEARS 7 TO 12

2022 - YEAR 7			2023 - YEAR 8			2024 - YEAR 9		
Item		\$	Item		\$	Item		\$
2	Asphalt pvmt, seal coat	\$11,460	68	Pool white coat	\$12,300	46	C Awning reframe	\$21,600
18	Site lighting, heads	\$10,125	71	Pool deck, concrete	\$12,100	70	Pool cover	\$1,620
19	Site Lighting, wood posts	\$45,000						
38	Building lights (10% allowan	\$4,400						
45	C Awning refabric	\$12,960						
Total Scheduled Replacements		\$83,945	Total Scheduled Replacements		\$24,400	Total Scheduled Replacements		\$23,220
2025 - YEAR 10			2026 - YEAR 11			2027 - YEAR 12		
Item		\$	Item		\$	Item		\$
37	Cedar siding/trim (20% repl	\$347,200	10	Concrete flatwork, exp agg (	\$4,500	38	Building lights (10% allowan	\$4,400
43	C Flat roofing, P2	\$23,940	33	Bldg piping, water supply (1	\$45,000	103	Dredging (20% allowance)	\$40,000
78	Pool furniture	\$1,500	44	C Flat roofing, P3	\$30,030			
91	Wood boardwalk, deck & str	\$145,000	55	C Mailboxes, cluster	\$14,400			
94	Pier decking	\$66,000	56	TH Shingle roofing (25 yr.)	\$19,680			
95	Pier structure	\$150,000	57	TH Gutter & downspout	\$2,100			
96	Pilings	\$234,900	66	PB Water heater	\$1,100			
98	Kayak rack	\$2,000	76	Pool pump	\$1,200			
99	Floating docks structure & fl	\$16,200	86	RB Heat pump	\$10,000			
100	Service pedestals	\$39,000	87	Tennis court - color coat	\$10,000			
101	Electrical distribution system	\$50,000	88	Tennis court - asphalt surfac	\$36,000			
102	Dockside water lines	\$40,000	89	Tennis court - posts & footin	\$5,200			
			90	Tennis court - fencing	\$11,040			
Total Scheduled Replacements		\$1,115,740	Total Scheduled Replacements		\$190,250	All Replacements not listed		\$44,400

PROJECTED REPLACEMENTS - YEARS 19 TO 24

2034 - YEAR 19			2035 - YEAR 20			2036 - YEAR 21		
Item		\$	Item		\$	Item		\$
2	Asphalt pvmt, seal coat	\$11,460	21	Brick pavers, sand set, re-se	\$630	1	Community signs	\$3,000
5	Concrete curb (20%)	\$8,840	43	C Flat roofing, P2	\$23,940	12	Concrete flatwork, exp agg (	\$4,500
70	Pool cover	\$1,620	78	Pool furniture	\$1,500	20	Landscape lights	\$13,750
			98	Kayak rack	\$2,000	25	Entry gate and system	\$30,000
						33	Bldg piping, water supply (1)	\$45,000
						44	C Flat roofing, P3	\$30,030
						66	PB Water heater	\$1,100
						76	Pool pump	\$1,200
						79	Pool fencing	\$5,760
						87	Tennis court - color coat	\$10,000
Total Scheduled Replacements		\$21,920	Total Scheduled Replacements		\$28,070	Total Scheduled Replacements		\$144,340
2037 - YEAR 22			2038 - YEAR 23			2039 - YEAR 24		
Item		\$	Item		\$	Item		\$
18	Site lighting, heads	\$10,125	27	Wood fencing	\$7,680	52	C Deck, railings	\$171,000
37	Cedar siding/trim (20% repl	\$347,200	68	Pool white coat	\$12,300	59	TH Deck & entry, railings	\$14,250
38	Building lights (10% allowan	\$4,400				77	Pool filter system	\$1,800
103	Dredging (20% allowance)	\$40,000						
Total Scheduled Replacements		\$401,725	Total Scheduled Replacements		\$19,980	Total Scheduled Replacements		\$187,050

PROJECTED REPLACEMENTS - YEARS 31 TO 36

2046 - YEAR 31			2047 - YEAR 32			2048 - YEAR 33		
Item		\$	Item		\$	Item		\$
2	Asphalt pvmt, seal coat	\$11,460	21	Brick pavers, sand set, re-se	\$630	63	PB Gutter & downspout	\$1,000
3	Asphalt pvmt, mill & overlay	\$97,410	38	Building lights (10% allowan	\$4,400	82	RB Gutters & downspouts	\$1,080
14	Concrete flatwork, exp agg (	\$4,500	83	RB Windows	\$2,025			
28	Wood trellis	\$2,640	85	RB Refurbish interior	\$24,000			
33	Bldg piping, water supply (1	\$45,000	103	Dredging (20% allowance)	\$40,000			
39	Utility and common doors	\$53,950						
44	C Flat roofing, P3	\$30,030						
65	PB Restrooms	\$10,000						
66	PB Water heater	\$1,100						
75	Pool deck, wood structure re	\$5,000						
76	Pool pump	\$1,200						
87	Tennis court - color coat	\$10,000						
88	Tennis court - asphalt surfac	\$36,000						
89	Tennis court - posts & footin	\$5,200						
90	Tennis court - fencing	\$11,040						
Total Scheduled Replacements		\$324,530	Total Scheduled Replacements		\$71,055	Total Scheduled Replacements		\$2,080
2049 - YEAR 34			2050 - YEAR 35			2051 - YEAR 36		
Item		\$	Item		\$	Item		\$
37	Cedar siding/trim (20% repl	\$347,200	78	Pool furniture	\$1,500	1	Community signs	\$3,000
47	C Chimney caps	\$25,200	98	Kayak rack	\$2,000	15	Concrete flatwork, exp agg (	\$4,500
						17	Wood step	\$32,400
						20	Landscape lights	\$13,750
						30	Oyster shell path, refurb	\$5,700
						34	Bldg piping, sanitary (10% a	\$36,000
						53	C Deck, decking (20% allow	\$85,000
						54	C Deck, structural repair (20	\$68,000
						56	TH Shingle roofing (25 yr.)	\$19,680
						60	TH Deck & entry, decking	\$7,600
						61	TH Deck & entry, structural r	\$20,000
						79	Pool fencing	\$5,760
						87	Tennis court - color coat	\$10,000
Total Scheduled Replacements		\$372,400	All Replacements not listed		\$3,500	Total Scheduled Replacements		\$311,390

PROJECTED REPLACEMENTS - YEARS 37 TO 42

2052 - YEAR 37			2053 - YEAR 38			2054 - YEAR 39		
Item		\$	Item		\$	Item		\$
2	Asphalt pvmt, seal coat	\$11,460	21	Brick pavers, sand set, re-se	\$630	41	C Shingle roofing (25 yr.)	\$220,800
6	Concrete curb (20%)	\$8,840	31	Water laterals	\$16,000	70	Pool cover	\$1,620
18	Site lighting, heads	\$10,125	32	Sanitary laterals	\$14,000			
19	Site Lighting, wood posts	\$45,000	35	Stormwater mgmt (10% allo	\$7,000			
36	Irrigation controls	\$10,000	68	Pool white coat	\$12,300			
38	Building lights (10% allowan	\$4,400	71	Pool deck, concrete	\$12,100			
45	C Awning refabric	\$12,960						
Total Scheduled Replacements		\$102,785	Total Scheduled Replacements		\$62,030	Total Scheduled Replacements		\$222,420
2055 - YEAR 40			2056 (beyond Study Period)			2057 (beyond Study Period)		
Item		\$	Item		\$	Item		\$
37	Cedar siding/trim (20% repl	\$347,200	16	Concrete flatwork, exp agg (	\$4,500	22	Brick pavers, sand set, repl	\$27,000
43	C Flat roofing, P2	\$23,940	23	Segmental retaining walls, r	\$18,200	38	Building lights (10% allowan	\$4,400
78	Pool furniture	\$1,500	25	Entry gate and system	\$30,000	103	Dredging (20% allowance)	\$40,000
91	Wood boardwalk, deck & str	\$145,000	33	Bldg piping, water supply (1	\$45,000			
94	Pier decking	\$66,000	44	C Flat roofing, P3	\$30,030			
95	Pier structure	\$150,000	57	TH Gutter & downspout	\$2,100			
98	Kayak rack	\$2,000	66	PB Water heater	\$1,100			
99	Floating docks structure & fl	\$16,200	76	Pool pump	\$1,200			
100	Service pedestals	\$39,000	86	RB Heat pump	\$10,000			
101	Electrical distribution system	\$50,000	87	Tennis court - color coat	\$10,000			
102	Dockside water lines	\$40,000						
Total Scheduled Replacements		\$880,840	Total Scheduled Replacements		\$152,130	Total Scheduled Replacements		\$71,400

CONDITION ASSESSMENT

General Comments. Miller - Dodson Associates conducted a Reserve Study at Shearwater Condominium Association in January and February of 2015. Shearwater Condominium Association is in generally good condition for a community constructed in 1982. 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 RESIDENTIAL BUILDINGS

The community's residences are in one townhome building and 16 multi-family stairway/buildings. Elevations are shown below. The first two pictures are of the single townhome building while the last four are of the multi-family buildings.





SITE COMPONENTS

Entry Signage. The Association maintains two wood community identification signs on either side of the entry road which is a continuation of Madison Street where it intersects with Boucher Avenue.



Asphalt Pavement. The Association is responsible for the roadways and parking areas within the community; other streets, such as Boucher Avenue and Madison Street, are maintained by the City of Annapolis. In general, the Association's asphalt pavements are in good condition, with minor cracking. The Analyst recommends application of a seal coat in 2015 and 2021 and with a mill and overlay 2027.



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.
- **Seal Coating.** The asphalt should be seal coated every five to seven years. For this maintenance activity to be effective in extending the life of the asphalt, cleaning and crack repair should be performed first.

The pricing used is based on recent contracts for a two-inch overlay, which reflects the current local market for this work.

For seal coating, several different products are available. The older, more traditional seal coating products are simply paints. They coat the surface of the asphalt and they are minimally effective. However, the newer coating materials, such as those from Total Asphalt Management, Asphalt Restoration Technologies, Inc., and

others, are penetrating. They are engineered, so to speak, to 'remoisturize' the pavement. Asphalt pavement is intended to be flexible. Over time, the volatile chemicals in the pavement dry, the pavement becomes brittle, and degradation follows in the forms of cracking and potholes. Remoisturizing the pavement can return its flexibility and extend the life of the pavement.

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>.

Concrete Work. The concrete work includes the community curbs, sidewalks, leadwalks, steps, stoops, and other flatwork. The sidewalks, leadwalks, and stoops are an exposed aggregate where the stone is a pea gravel mixture. We have modeled for curb replacement when the asphalt pavement is overlaid. The steps are located at the building entries leading to a basement lobby where access is for the utility rooms. The overall condition of the concrete work is good.





The standards we use for recommending replacement are as follows:

- Trip hazard, ½ inch height difference.
- Severe cracking.
- Severe spalling and scale.
- Uneven riser heights on steps.
- Steps with risers in excess of 8¼ inches.

Because it is highly unlikely that all of the concrete components will fail and require replacement in the period of the study, we have programmed funds for the replacement of these inventories and spread the funds over an extended timeframe to reflect the incremental nature of this work.

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>.

Site Lighting. The Association is responsible for the operation of the facility's landscape, walkway, and street lights. The lighting system was not on at the time of our site visit. But because of its signs of aging, the Analyst shows funding in this study for replacement by the end of the 2021 fiscal year.

This study assumes replacement of the light fixtures every 15 to 20 years, and pole replacement every 30 to 40 years. When the light poles are replaced, we assume that the underground wiring will also be replaced.

When a whole-scale lighting replacement project is called for, we recommend consulting with a lighting design expert. Many municipalities have design codes, guidelines, and restrictions when it comes to exterior illumination.

In addition, new technology such LED and LIFI among others should be evaluated when considering replacement.





Brick Pavers. Brick pavers provide solid, decorative, and renewable surfaces that are part of the community's sidewalks. The overall condition of the unit pavers is good with areas of defects consistent with the age of their installation. Because of their inter-action with the wood retaining walls and wood steps as well as their age, the pavers are funded for replacement in five years.



Unit pavers have a service life of 30 to 40 years 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 unit paver system be replaced.

Pressure Treated Wood Steps. The community has a large amount exterior timber steps that are constructed from pressure treated wood. The general condition of the steps is poor because of the normal signs of aging. Like the Brick pavers and the Wood retaining walls, this component is funded for replacement in five years.

Along with the next component; the Analyst recommends the use of an engineered, segmental block system for these steps as well as the inter-connected retaining walls.



Retaining Walls. The Association maintains several wood retaining walls. The retaining walls are in poor condition.

As mentioned above, the Analyst recommends the use of an engineered segmental block retaining wall system as described in the following text.





Retaining walls in general are designed to provide slope stabilization and soil retention by means of a structural system. Typically, walls that are three feet high or more require some level of design.

Movement and displacement of any retaining wall is a sign of general settlement or failure. This typically is in the form of leaning and bowing, and can involve the entire wall or localized sections of the wall. Typically, these types of movements are gradual and may require the replacement of the wall. Movement of retaining walls located near other buildings or structures may negatively affect the stability of the adjacent structure. These conditions can become extremely costly if not properly identified, monitored, and addressed.

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. This study assumes that resetting will be performed incrementally as needed.

When and if it becomes necessary to replace these walls, we recommend the Association consider one of the segmental block retaining wall systems. These systems are very low maintenance. If over time the wall experiences movement, sections of the walls can be re-stacked at a very small portion of the cost of a new wall. Segmental block retaining walls can have a service life of 80 years or more. As a general source of information about retaining walls, we offer several links from our website at <http://mdareserves.com/resources/links/site-components>.

Retaining wall replacement can be costly, and early planning on the part of the Association can help to reduce the impact of this work on the community's budget in the future. We therefore recommend having a Professional Engineer inspect the walls and develop preliminary replacement alternatives and recommendations based on the site conditions, replacement costs, and recommended replacement wall types. This information can then be incorporated into future updates to the Reserve Study.

Fencing. The Association maintains wood and aluminum fencing that is in a generally good condition. Fencing systems have a large number of configurations and finishes that can usually be repaired as a maintenance activity by replacing individual components as they become damaged or weathered.



Protection from string machine damage during lawn maintenance can extend the useful life of some fence types. Protection from this type of damage is typically provided by applying herbicides around post bases or installing protective sheathing.

Pressure treated wood fencing should be cleaned and sealed every year or two. Typically the least cost fencing option, this type of fence can last 15 to 20 years if maintained properly.

Aluminum fencing can have a useful life of 40 years or more. Periodic cleaning and touch-up painting may be required to keep the fence attractive.

For more information on fencing, visit our [website link](#) to the American Fence Association.

Underground Utilities. The Association is responsible for the maintenance of the underground utility lines, including the storm water management pipes, water lines, and sanitary lines. Engineering drawings were not used in the determination of these underground components. Instead, we have provided an estimate of the approximate replacement costs based on our experience with other facilities of similar size and configuration. The inspection and evaluation of underground lines and structures is beyond the scope of work for this study.

Miscellaneous Site Components. Not mentioned above are the following components such as; the entry gate, its key pad, a wood trellis, a wood shed, and an oyster shell path.



BUILDING EXTERIOR COMPONENTS

The residential Building Exterior Components are segregated among three separate pages: namely "Building Exterior, General"; "Building Exterior, Condo's (C)"; "Building Exterior, Townhomes (TH)".

Building Roofing. The condominium buildings, the townhomes building, the pool building, and the racquetball building all have 25 year-life fiberglass-asphalt shingles.

The condominium buildings' shingles were replaced in 2004 while the townhomes building's shingles were replaced in 2000. The Analyst has funded for the shingles on the pool building and the racquetball building to be replaced in 2017 or 2018.



Asphalt shingle roofs can have a useful life of 20 to 50 years depending on the weight and quality of the shingle. Weathered, curled, and missing shingles are all indications that the shingles may be nearing the end of their useful life. The shingles used by the Association on the Condominium and Townhome buildings are 25 year-life ones as are being funded for the other two buildings.

Because of the inclement weather, access to the roof was not available at the time of inspection.

Annual inspections are recommended, with cleaning, repair, and mitigation of vegetation performed as needed. Access, inspection, and repair work should be performed by contractors and personnel with the appropriate access equipment who are experienced in the types of roofing used for the facility.

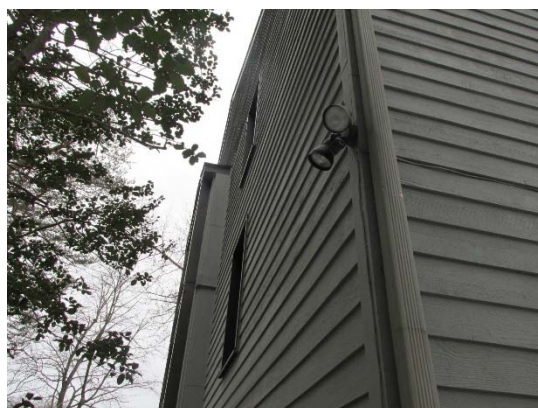
For additional information on roofs and roof maintenance, please see the appropriate links on our web site at <http://mdareserves.com/resources/links/building-exterior>.

Chimney Caps. There are metal caps on the condominium and townhome buildings' chimneys. The chimney caps are in fair condition based on their age. Chimney caps have a typical service life of 30 years.

All chimney caps were observed from the ground level.



Gutters and Downspouts. The buildings have aluminum gutters and downspouts. The gutters and downspouts are in good condition.



A gutter and downspout system will remove rainwater from the area of the building roof, siding, and foundation. This will protect building's exterior surfaces from water damage. Gutters should run the full length of all drip edges of the building roof. Even with full gutters, it is important to inspect the function of the gutters during heavy rain to identify any deficiencies. It may be necessary to periodically adjust the slope of sections, repair connections, replace hangers, and install shrouds to the gutters. Downspouts should be securely attached to the side of the structure. Any broken straps should be replaced. The area of the outlet should be inspected to promote run-off in the desired direction. Long straight runs should have an elbow at the bottom. Splash blocks should be installed to fray the water out-letting from the downspout.

It is recommended that all gutters be cleaned at least twice each year. If there are a large number of trees located close to a building, consider installing a gutter debris shield that will let water into the gutters but will filter out leaves, twigs, and other debris.

Siding and Trim. The exteriors of all the buildings have cedar siding and trim. That is what the Analyst has used in the funding. It is recommended by the Analyst; that at the time of replacement, the use of vinyl or another synthetic material be considered.

Because of that recommendation, other materials are described in the text starting just below the pictures.



Wooden exterior materials are typically repaired as needed during normal painting cycles. Painting cycles for wooden exteriors vary between five and ten years depending on the grade of wood and the quality of the materials and finish work. In this study, we have modeled for incremental wood material replacement to coincide with the painting cycle of the facility.

Hardboard materials are constructed from wood fiber, wax, and resins that are compressed under heat and pressure. Many of these types of materials have a history of problems and premature failure. As the hardboard material ages, some of the compression is relieved, resulting in localized swelling. Water can enter these swollen areas, accelerating the degradation process, resulting in delamination, and blistering. Once damaged, the hardboard material cannot be repaired. In addition, the Association may discover that there is significant damage to the underlying sheathing and building structure if the damaged hardboard has allowed moisture to gain access to these underlying elements over a long period. Structural repairs and latent damage are not accounted for in this study.

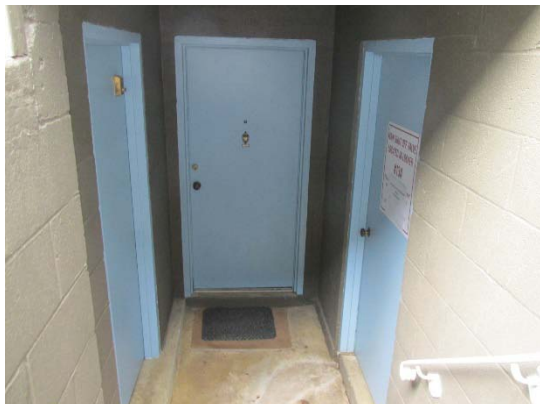
As an alternative to high-maintenance materials, the Association may want to consider replacements using low maintenance synthetic or cementitious materials. For additional consideration, please see the related articles "Alternative Trim Materials - A Replacement for Wood Trim?" and "An Examination of New Materials - Cement Fiber Composites" on our web site at <http://mdareserves.com/resources/links/building-exterior>.

Vinyl siding and trim can have an extended useful life of from 25 to 35 years.

Cementitious materials typically have an extended useful life and require repainting and recaulking every 10 to 15 years. Following the manufacturer's recommendations for cleaning, painting, and caulking, we expect cementitious products to have a useful life of 40 years or more.

Windows and Doors. The Association is responsible for the common windows (on the Racquetball building) and exterior doors of that facility and the common doors of the multi-family buildings. The individual owners are responsible for the windows and doors attributed to their unit.

The windows are in poor condition and the common doors are in fair condition.



For Associations where the unit owner is responsible for the replacement of their own windows and exterior doors, we recommend for the Association consider offering the unit owners an option to have their replacements performed in conjunction with the Association's work. This can be performed either by separate agreement between the unit owner and the Association's selected contractor or by back charging the unit owner.

Window and door units play an integral part in a facility's overall comfort, efficiency, and energy use. The quality of the installed units and the care taken in their installation and maintenance are major factors in their effectiveness and useful life. These units can have a useful life of 20 to 35 years or more depending on their use and other factors mentioned above.

In general, we recommend coordinating the replacement of these units with other exterior work, such as siding and roof replacements. The weather tightness of the building envelope often requires transitional flashing and caulking that should be performed in coordination with each other. Warranties and advantages in 'economy of scale' can often result in lower overall replacement costs and results that are more reliable. Lastly, coordinated replacements offer the opportunity to correct initial construction defects and improve the effectiveness of details with improved construction techniques and materials.

For more information, please see our links at <http://mdareserves.com/resources/links/building-exterior>.

Entrance Awnings. The Association maintains a fabric cover on metal frame at each of the multi-family building entrance stair landings. The overall condition is good. We have assumed a service life of 10 years for the fabric cover and 20 years for the metal framing.



To prolong the useful life of the fabric cover, we recommend periodic cleaning and the application of an appropriate sealant.

Wood Decks. The wooden decks of the community are maintained by the Association. They are in excellent condition after having been recently replaced. Because of the community's proximity to a tributary of the Chesapeake Bay, special wood was used without the usual chemicals seen in wood treatment.





We recommend for the Association implement an annual inspection program. We also recommend power washing every two to three years. Installation of carpet or other water trapping coverings should be prohibited and potted plants should be placed on raised feet to allow for proper air circulation and drying of wooden components.

Exterior Wood Stairs. The exterior stairs consist of wood posts, treads, and landings with wood stringers. The stairs are in good condition.





The wood in the exterior stairs expands and contracts with changes in temperature and moisture levels within the wood, leading to cracks. Untreated, these cracks will expand and can lead to the development of rot within the wood.

It is recommended that the Association inspect all stairs at least once each year. All areas with moderate cracking or rot should be replaced. Areas covered with mold should be cleaned and treated.

Mailboxes. The cluster mailboxes located throughout the community are in good 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 fiberglass or composite units.



RECREATIONAL COMPONENTS

Pool Building & Pool. The community operates a pool building, a concrete deck, a wood deck, and outdoor pool of concrete construction. Listed below are the major components of the pool facilities:

The pool was winterized at the time of inspection and is reported to be in good condition.



Interiors.



New deck surface.



Deck structure.



Because of the inclement weather, the pool was not available.

However, the Association anticipates replacing the coping in 2015. Because the coping, the white coat, and the waterline tile are all inter-connected; the Analyst recommends and funded for all three components to be done at the same time.

- Pool Shell. unknown.

- Pool Deck. The pool has a concrete deck and a wood deck of new composite decking over an older oversized timber framing structure. As shown in the pictures below, there are two serious problems with the wood deck: the fasteners of the deck's structure appear to be seriously rusted and the timbers are showing signs their remaining life cycle is limited. With all this in mind, the Analyst added a new component to address the structure fastening and funded for the Remaining Economic Life cycles in the same (15th) year.
- Whitecoat. See above.
- Waterline Tile. See above.
- Coping. See above.
- Pump and Filter System. These components are funded for their replacement in the near future.

Racquetball & Courts. Near the entrance to the community are located the racquetball court building and the tennis courts.

The racquetball building is underutilized because of its decrepit condition. It appears to the Analyst that the Association shares this assessment as published in a study by Association Board of Directors Carol Schaake and Larry Birch titled "Racquetball Court Project."

The Remaining Economic Life cycles are based on this study.



The community maintains two tennis courts. The overall condition of these courts was not to be determined because of a significant snow cover.

The funding information is based on information from the Association as well as the Analyst being able to see some parts of the components.



Listed below are the major components of the tennis court facilities:

- Asphalt Pavement (base layer). We have assumed a service life of 20 to 30 years for the asphalt base layer.

- Color Coat (surface layer). Annual cleaning is recommended to maintain the surface of the court. The base of a tennis court is subject to cracking and low spots known as “birdbaths” that can occur from weather and earth movement. A program to address cracks as they appear will help to prolong the useful life of the color coat. We have assumed a service life of five to ten years for the color coat.
- Fencing. We have assumed that the fencing will be replaced when the asphalt pavement is replaced. Posts and fencing should be inspected, repaired, and painted as needed to prolong their economic life. Periodic inspection of the posts, gates, hinges, and latches is also recommended, and it is important that posts and footings be protected to prevent soil erosion. In addition, care should be taken so that damage from string trimmers is minimized.
- Net Posts. We have assumed that the new posts will be replaced when the asphalt pavement is replaced.

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 Shearwater Condominium Association - Cash Flow Method Accounting Summary is an attachment to the Shearwater Condominium Association - Replacement Reserve Study dated Revised April 10, 2015 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles.

This Summary consists of four reports, the 2016, 2017, and 2018 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- CASH FLOW METHOD CATEGORY FUNDING REPORT, 2016, 2017, and 2018. Each of the 103 Projected Replacements listed in the Shearwater Condominium Association Replacement Reserve Inventory has been assigned to one of 9 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 \$470,000 Beginning Balance (at the start of the Study Year) and the \$805,258 of additional Replacement Reserve Funding in 2016 through 2018 (as calculated in the Replacement Reserve Analysis) to each of the 103 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 2016 through 2018.
 - Allocation of the \$470,000 Beginning Balance to the Projected Replacements by Chronological Allocation.
 - Allocation of the \$805,258 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2016 through 2018, 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 \$470,000 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 Shearwater Condominium Association the Beginning Balance funds all Scheduled Replacements in the Study Year through 2018 and provides partial funding (34%) of replacements scheduled in 2019.
 - The next step is the allocation of the \$268,419 of 2016 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 Shearwater Condominium Association the Beginning Balance and the 2016 Replacement Reserve Funding, funds replacements through 2018 and partial funds (82.1%) replacements in 2019.
 - Allocations of the 2017 and 2018 Reserve Funding are done using the same methodology.
 - The Three-Year Replacement Funding Report details component by component allocations made by Chronological Allocation.

2016 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 103 Projected Replacements included in the Shearwater Condominium Association Replacement Reserve Inventory has been assigned to one of the 9 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 \$470,000 as of the first day of the Study Year, July 1, 2015.
- Total reserve funding (including the Beginning Balance) of \$738,419 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 2016 being accomplished in 2016 at a cost of \$184,950.

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.

2016 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
SITE COMPONENT	6 to 60 years	0 to 40 years	\$364,170	\$24,800		(\$24,800)	
SITE COMPONENT (cont.)	6 to 100 years	0 to 40 years	\$427,475	\$37,680		(\$30,000)	\$7,680
SITE COMPONENT (cont.)	10 to 20 years	0 to 17 years	\$128,000	\$45,000		(\$45,000)	
BUILDING EXTERIOR, GENERAL	5 to 30 years	0 to 29 years	\$419,200	\$177,808	\$165,739	(\$53,950)	\$289,597
BUILDING EXTERIOR, CONDO'S (C)	10 to 35 years	3 to 15 years	\$1,485,430	\$67,505	\$93,658		\$161,163
BUILDING EXTERIOR, TOWNHOMES (TH)	10 to 30 years	3 to 15 years	\$66,480	\$5,883	\$8,163		\$14,046
POOL BUILDING (PB) & POOL	5 to 60 years	0 to 28 years	\$211,080	\$26,819	\$859	(\$21,200)	\$6,479
RACQUETBALL (RB) & COURTS	5 to 30 years	0 to 10 years	\$106,745	\$44,505		(\$10,000)	\$34,505
MARINA	5 to 45 years	1 to 17 years	\$977,501	\$40,000			\$40,000

2017 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 103 Projected Replacements included in the Shearwater Condominium Association Replacement Reserve Inventory has been assigned to one of the 9 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 \$553,469 on July 1, 2016.
- Total reserve funding (including the Beginning Balance) of \$1,006,839 from 2016 through 2017.
- 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 2017 being accomplished in 2017 at a cost of \$72,225.

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.

2017 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
SITE COMPONENT	6 to 60 years	4 to 59 years	\$364,170		\$19,376		\$19,376
SITE COMPONENT (cont.)	6 to 100 years	1 to 39 years	\$427,475	\$7,680	\$137,474		\$145,154
SITE COMPONENT (cont.)	10 to 20 years	9 to 16 years	\$128,000				
BUILDING EXTERIOR, GENERAL	5 to 30 years	0 to 29 years	\$419,200	\$289,597	\$62,003	(\$4,400)	\$347,200
BUILDING EXTERIOR, CONDO'S (C)	10 to 35 years	2 to 14 years	\$1,485,430	\$161,163	\$35,037		\$196,200
BUILDING EXTERIOR, TOWNHOMES (TH)	10 to 30 years	2 to 14 years	\$66,480	\$14,046	\$3,054		\$17,100
POOL BUILDING (PB) & POOL	5 to 60 years	1 to 29 years	\$211,080	\$6,479	\$4,619		\$11,097
RACQUETBALL (RB) & COURTS	5 to 30 years	0 to 9 years	\$106,745	\$34,505	\$4,856	(\$27,825)	\$11,536
MARINA	5 to 45 years	0 to 16 years	\$977,501	\$40,000	\$2,000	(\$40,000)	\$2,000

2018 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 103 Projected Replacements included in the Shearwater Condominium Association Replacement Reserve Inventory has been assigned to one of the 9 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 \$749,664 on July 1, 2017.
- Total Replacement Reserve funding (including the Beginning Balance) of \$1,275,258 from 2016 to 2018.
- 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 2018 being accomplished in 2018 at a cost of \$19,360.

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.

2018 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF3							
CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2018 BEGINNING BALANCE	2018 RESERVE FUNDING	2018 PROJECTED REPLACEMENTS	2018 END OF YEAR BALANCE
SITE COMPONENT	6 to 60 years	3 to 58 years	\$364,170	\$19,376	\$31,984		\$51,360
SITE COMPONENT (cont.)	6 to 100 years	0 to 38 years	\$427,475	\$145,154	\$200,741	(\$7,680)	\$338,215
SITE COMPONENT (cont.)	10 to 20 years	8 to 15 years	\$128,000				
BUILDING EXTERIOR, GENERAL	5 to 30 years	1 to 28 years	\$419,200	\$347,200	\$4,400		\$351,600
BUILDING EXTERIOR, CONDO'S (C)	10 to 35 years	1 to 13 years	\$1,485,430	\$196,200	\$12,960		\$209,160
BUILDING EXTERIOR, TOWNHOMES (TH)	10 to 30 years	1 to 13 years	\$66,480	\$17,100	\$0		\$17,100
POOL BUILDING (PB) & POOL	5 to 60 years	0 to 28 years	\$211,080	\$11,097	\$13,191	(\$5,000)	\$19,288
RACQUETBALL (RB) & COURTS	5 to 30 years	0 to 29 years	\$106,745	\$11,536	\$5,144	(\$6,680)	\$10,000
MARINA	5 to 45 years	2 to 15 years	\$977,501	\$2,000			\$2,000

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF4 below details the allocation of the \$470,000 Beginning Balance, as reported by the Association and the \$805,258 of Replacement Reserve Funding calculated by the Cash Flow Method from 2016 to 2018, to the 103 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 \$470,000 on July 1, 2015.
- Replacement Reserves on Deposit totaling \$553,469 on July 1, 2016.
- Replacement Reserves on Deposit totaling \$749,664 on July 1, 2017.
- Total Replacement Reserve funding (including the Beginning Balance) of \$1,275,258 from 2016 to 2018.
- 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 2016 to 2018 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of \$276,535.

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	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
SITE COMPONENT												
1	Community signs	3,000					1,457		1,457	1,543		3,000
2	Asphalt pvmt, seal coat	11,460	11,460		(11,460)					11,460		11,460
3	Asphalt pvmt, mill & overlay	97,410										
4	Concrete curb (20%)	8,840	8,840		(8,840)							
5	Concrete curb (20%)	8,840										
6	Concrete curb (20%)	8,840										
7	Concrete steps to basements	152,880										
8	Concrete flatwork, exp agg (5%)	4,500	4,500		(4,500)							
9	Concrete flatwork, exp agg (5%)	4,500					2,185		2,185	2,315		4,500
10	Concrete flatwork, exp agg (5%)	4,500										
11	Concrete flatwork, exp agg (5%)	4,500										
12	Concrete flatwork, exp agg (5%)	4,500										
13	Concrete flatwork, exp agg (5%)	4,500										
14	Concrete flatwork, exp agg (5%)	4,500										
15	Concrete flatwork, exp agg (5%)	4,500										
16	Concrete flatwork, exp agg (5%)	4,500										
17	Wood step	32,400					15,734		15,734	16,666		32,400
SITE COMPONENT (cont.)												
18	Site lighting, heads	10,125								10,125		10,125
19	Site Lighting, wood posts	45,000								45,000		45,000
20	Landscape lights	13,750					6,677		6,677	7,073		13,750
21	Brick pavers, sand set, re-set 10%	630										
22	Brick pavers, sand set, replace	27,000					13,112		13,112	13,888		27,000
23	Segmental retaining walls, re-set 10%	18,200										
24	Segmental retaining walls, replace	234,000					113,635		113,635	120,365		234,000
25	Entry gate and system	30,000	30,000		(30,000)							
26	Aluminum fencing	24,750										
27	Wood fencing	7,680	7,680			7,680			7,680		(7,680)	
28	Wood trellis	2,640					1,282		1,282	1,358		2,640
29	Wood shed	8,000										
30	Oyster shell path, refurb	5,700					2,768		2,768	2,932		5,700
SITE COMPONENT (cont.)												
31	Water laterals	16,000										
32	Sanitary laterals	14,000										
33	Bldg piping, water supply (10% allow)	45,000	45,000		(45,000)							
34	Bldg piping, sanitary (10% allowance)	36,000										
35	Stormwater mgmt (10% allowance)	7,000										
36	Irrigation controls	10,000										
BUILDING EXTERIOR, GENERAL												

COMPONENT METHOD



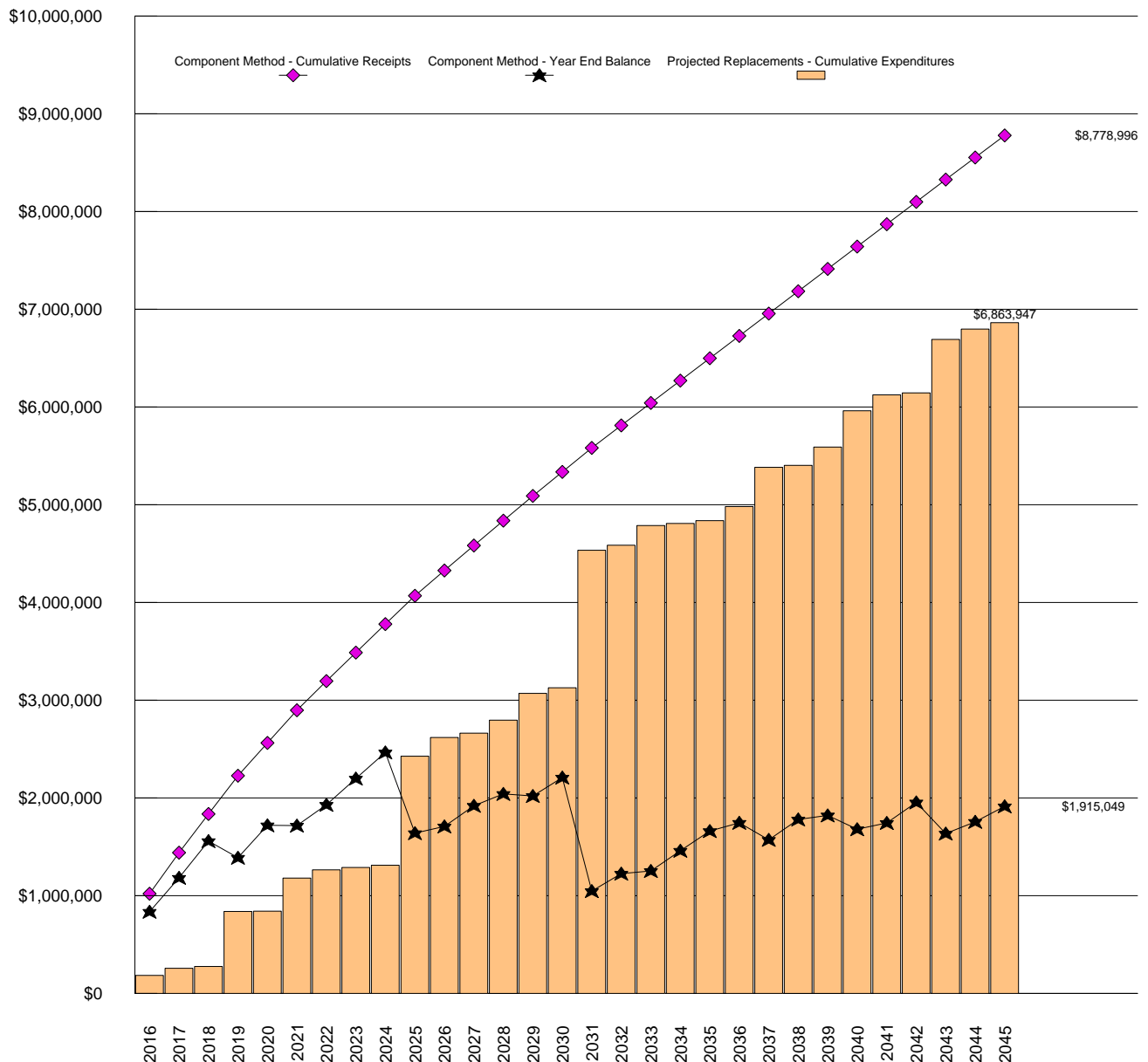
\$550,782

COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2016.

\$493.53 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 103 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 103 Projected Replacements. The total, \$2,157,241, 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 (\$470,000) by the Current Funding Objective (\$2,157,241). At Shearwater Condominium Association the Funding Percentage is
- **Allocation of the Beginning Balance.** The Beginning Balance is divided among the 103 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 21.8 percent funded, there is \$174 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 \$550,782, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2016).

In our fence example, the \$174 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 \$413. Next year, the deposit remains \$413, 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	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Beginning balance	\$470,000									
Recommended annual funding	\$550,782	\$419,292	\$396,225	\$391,833	\$335,205	\$335,205	\$297,385	\$292,492	\$291,064	\$290,017
Interest on reserves										
Expenditures	\$184,950	\$72,225	\$19,360	\$562,300	\$3,500	\$338,750	\$83,945	\$24,400	\$23,220	\$1,115,740
Year end balance	\$835,832	\$1,182,900	\$1,559,765	\$1,389,298	\$1,721,003	\$1,717,458	\$1,930,898	\$2,198,990	\$2,466,834	\$1,641,111
Cumulative Expenditures	\$184,950	\$257,175	\$276,535	\$838,835	\$842,335	\$1,181,085	\$1,265,030	\$1,289,430	\$1,312,650	\$2,428,390
Cumulative Receipts	\$1,020,782	\$1,440,075	\$1,836,300	\$2,228,133	\$2,563,338	\$2,898,543	\$3,195,928	\$3,488,420	\$3,779,484	\$4,069,501
Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Recommended annual funding	\$258,620	\$255,202	\$255,202	\$252,730	\$245,733	\$244,987	\$230,221	\$230,152	\$228,788	\$228,539
Interest on reserves										
Expenditures	\$190,250	\$44,400	\$133,620	\$273,500	\$57,451	\$1,407,100	\$51,360	\$202,000	\$21,920	\$28,070
Year end balance	\$1,709,481	\$1,920,283	\$2,041,865	\$2,021,096	\$2,209,377	\$1,047,264	\$1,226,125	\$1,254,278	\$1,461,145	\$1,661,614
Cumulative Expenditures	\$2,618,640	\$2,663,040	\$2,796,660	\$3,070,160	\$3,127,611	\$4,534,711	\$4,586,071	\$4,788,071	\$4,809,991	\$4,838,061
Cumulative Receipts	\$4,328,121	\$4,583,323	\$4,838,525	\$5,091,256	\$5,336,988	\$5,581,975	\$5,812,196	\$6,042,349	\$6,271,136	\$6,499,675
Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Recommended annual funding	\$228,612	\$228,515	\$228,515	\$228,515	\$228,515	\$228,515	\$228,450	\$228,450	\$226,173	\$225,059
Interest on reserves										
Expenditures	\$144,340	\$401,725	\$19,980	\$187,050	\$371,160	\$163,330	\$19,160	\$546,680	\$106,020	\$66,441
Year end balance	\$1,745,887	\$1,572,677	\$1,781,212	\$1,822,677	\$1,680,033	\$1,745,218	\$1,954,508	\$1,636,278	\$1,756,431	\$1,915,049
Cumulative Expenditures	\$4,982,401	\$5,384,126	\$5,404,106	\$5,591,156	\$5,962,316	\$6,125,646	\$6,144,806	\$6,691,486	\$6,797,506	\$6,863,947
Cumulative Receipts	\$6,728,288	\$6,956,803	\$7,185,318	\$7,413,833	\$7,642,349	\$7,870,864	\$8,099,314	\$8,327,764	\$8,553,937	\$8,778,996

COMPONENT METHOD ACCOUNTING SUMMARY

This Shearwater Condominium Association - Component Method Accounting Summary is an attachment to the Shearwater Condominium Association - Replacement Reserve Study dated Revised April 10, 2015 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles.

This Summary consists of four reports, the 2016, 2017, and 2018 Component Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2016, 2017, and 2018. Each of the 103 Projected Replacements listed in the Shearwater Condominium Association Replacement Reserve Inventory has been assigned to one of 9 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 \$470,000 Beginning Balance (at the start of the Study Year) and the \$1,366,300 of additional Replacement Reserve funding from 2016 to 2018 (as calculated in the Replacement Reserve Analysis) to each of the 103 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 2016 through 2018.
 - Allocation of the \$470,000 Beginning Balance to the Projected Replacements by the Component Method.
 - Allocation of the \$1,366,300 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2016 through 2018, by the Component Method.

2016 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 103 Projected Replacements included in the Shearwater Condominium Association Replacement Reserve Inventory has been assigned to one of the 9 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 \$470,000 as of the first day of the Study Year, July 1, 2015.
- Total reserve funding (including the Beginning Balance) of \$1,020,782 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 2016 being accomplished in 2016 at a cost of \$184,950.

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.

2016 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
SITE COMPONENT	6 to 60 years	0 to 40 years	\$364,170	\$41,313	\$38,654	\$24,800	\$55,167
SITE COMPONENT (cont.)	6 to 100 years	0 to 40 years	\$427,475	\$76,210	\$72,690	\$30,000	\$118,900
SITE COMPONENT (cont.)	10 to 20 years	0 to 17 years	\$128,000	\$10,131	\$40,070	\$45,000	\$5,201
BUILDING EXTERIOR, GENERAL	5 to 30 years	0 to 29 years	\$419,200	\$37,544	\$125,060	\$53,950	\$108,654
BUILDING EXTERIOR, CONDO'S (C)	10 to 35 years	3 to 15 years	\$1,485,430	\$147,654	\$120,113		\$267,767
BUILDING EXTERIOR, TOWNHOMES (TH)	10 to 30 years	3 to 15 years	\$66,480	\$6,568	\$6,930		\$13,497
POOL BUILDING (PB) & POOL	5 to 60 years	0 to 28 years	\$211,080	\$25,597	\$28,589	\$21,200	\$32,986
RACQUETBALL (RB) & COURTS	5 to 30 years	0 to 10 years	\$106,745	\$14,471	\$26,020	\$10,000	\$30,491
MARINA	5 to 45 years	1 to 17 years	\$977,501	\$110,511	\$92,657		\$203,169

2017 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 103 Projected Replacements included in the Shearwater Condominium Association Replacement Reserve Inventory has been assigned to one of the 9 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 \$835,832 on July 1, 2016.
- Total reserve funding (including the Beginning Balance) of \$1,440,075 from 2016 through 2017.
- 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 2017 being accomplished in 2017 at a cost of \$72,225.

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.

2017 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
SITE COMPONENT	6 to 60 years	4 to 59 years	\$364,170	\$55,167	\$21,404		\$76,572
SITE COMPONENT (cont.)	6 to 100 years	1 to 39 years	\$427,475	\$118,900	\$50,726		\$169,626
SITE COMPONENT (cont.)	10 to 20 years	9 to 16 years	\$128,000	\$5,201	\$9,375		\$14,576
BUILDING EXTERIOR, GENERAL	5 to 30 years	0 to 29 years	\$419,200	\$108,654	\$84,662	\$4,400	\$188,916
BUILDING EXTERIOR, CONDO'S (C)	10 to 35 years	2 to 14 years	\$1,485,430	\$267,767	\$120,113		\$387,879
BUILDING EXTERIOR, TOWNHOMES (TH)	10 to 30 years	2 to 14 years	\$66,480	\$13,497	\$6,930		\$20,427
POOL BUILDING (PB) & POOL	5 to 60 years	1 to 29 years	\$211,080	\$32,986	\$13,227		\$46,214
RACQUETBALL (RB) & COURTS	5 to 30 years	0 to 9 years	\$106,745	\$30,491	\$20,198	\$27,825	\$22,864
MARINA	5 to 45 years	0 to 16 years	\$977,501	\$203,169	\$92,657	\$40,000	\$255,826

2018 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 103 Projected Replacements included in the Shearwater Condominium Association Replacement Reserve Inventory has been assigned to one of the 9 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 \$1,182,900 on July 1, 2017.
- Total Replacement Reserve funding (including the Beginning Balance) of \$1,836,300 from 2016 to 2018.
- 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 2018 being accomplished in 2018 at a cost of \$19,360.

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.

2018 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2018 BEGINNING BALANCE	2018 RESERVE FUNDING	2018 PROJECTED REPLACEMENTS	2018 END OF YEAR BALANCE
SITE COMPONENT	6 to 60 years	3 to 58 years	\$364,170	\$76,572	\$21,404		\$97,976
SITE COMPONENT (cont.)	6 to 100 years	0 to 38 years	\$427,475	\$169,626	\$50,726	\$7,680	\$212,673
SITE COMPONENT (cont.)	10 to 20 years	8 to 15 years	\$128,000	\$14,576	\$9,375		\$23,951
BUILDING EXTERIOR, GENERAL	5 to 30 years	1 to 28 years	\$419,200	\$188,916	\$83,630		\$272,545
BUILDING EXTERIOR, CONDO'S (C)	10 to 35 years	1 to 13 years	\$1,485,430	\$387,879	\$120,113		\$507,992
BUILDING EXTERIOR, TOWNHOMES (TH)	10 to 30 years	1 to 13 years	\$66,480	\$20,427	\$6,930		\$27,356
POOL BUILDING (PB) & POOL	5 to 60 years	0 to 28 years	\$211,080	\$46,214	\$13,227	\$5,000	\$54,441
RACQUETBALL (RB) & COURTS	5 to 30 years	0 to 29 years	\$106,745	\$22,864	\$10,677	\$6,680	\$26,861
MARINA	5 to 45 years	2 to 15 years	\$977,501	\$255,826	\$80,143		\$335,970

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the \$470,000 Beginning Balance, as reported by the Association and the \$1,366,300 of Replacement Reserve Funding calculated by the Cash Flow Method from 2016 to 2018, to the 103 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 \$470,000 on July 1, 2015.
- Replacement Reserves on Deposit totaling \$835,832 on July 1, 2016.
- Replacement Reserves on Deposit totaling \$1,182,900 on July 1, 2017.
- Total Replacement Reserve funding (including the Beginning Balance) of \$1,836,300 from 2016 to 2018.
- 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 2016 to 2018 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of \$276,535.

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	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
SITE COMPONENT												
1	Community signs	3,000	392	435		827	435		1,261	435		1,696
2	Asphalt pvmt, seal coat	11,460	2,497	8,963	(11,460)		1,910		1,910	1,910		3,820
3	Asphalt pvmt, mill & overlay	97,410	5,895	7,040		12,935	7,040		19,974	7,040		27,014
4	Concrete curb (20%)	8,840	1,926	6,914	(8,840)		147		147	147		295
5	Concrete curb (20%)	8,840	1,316	396		1,712	396		2,108	396		2,504
6	Concrete curb (20%)	8,840	738	219		957	219		1,176	219		1,395
7	Concrete steps to basements	152,880	17,764	4,826		22,590	4,826		27,415	4,826		32,241
8	Concrete flatwork, exp agg (5%)	4,500	980	3,520	(4,500)		90		90	90		180
9	Concrete flatwork, exp agg (5%)	4,500	863	606		1,469	606		2,075	606		2,681
10	Concrete flatwork, exp agg (5%)	4,500	765	340		1,104	340		1,444	340		1,783
11	Concrete flatwork, exp agg (5%)	4,500	667	240		906	240		1,146	240		1,385
12	Concrete flatwork, exp agg (5%)	4,500	569	187		756	187		943	187		1,130
13	Concrete flatwork, exp agg (5%)	4,500	471	155		626	155		781	155		936
14	Concrete flatwork, exp agg (5%)	4,500	373	133		506	133		639	133		772
15	Concrete flatwork, exp agg (5%)	4,500	275	117		392	117		509	117		627
16	Concrete flatwork, exp agg (5%)	4,500	176	105		282	105		387	105		493
17	Wood step	32,400	5,647	4,459		10,106	4,459		14,565	4,459		19,024
SITE COMPONENT (cont.)												
18	Site lighting, heads	10,125	1,177	1,278		2,455	1,278		3,733	1,278		5,012
19	Site Lighting, wood posts	45,000	7,517	5,355		12,871	5,355		18,226	5,355		23,581
20	Landscape lights	13,750	1,797	1,992		3,790	1,992		5,782	1,992		7,774
21	Brick pavers, sand set, re-set 10%	630		32		32	32		63	32		95
22	Brick pavers, sand set, replace	27,000	4,902	3,683		8,585	3,683		12,268	3,683		15,951
23	Segmental retaining walls, re-set 10%	18,200		444		444	444		888	444		1,332
24	Segmental retaining walls, replace	234,000	47,923	31,013		78,936	31,013		109,949	31,013		140,961
25	Entry gate and system	30,000	6,536	23,464	(30,000)		1,500		1,500	1,500		3,000
26	Aluminum fencing	24,750	3,056	1,669		4,724	1,669		6,393	1,669		8,062
27	Wood fencing	7,680	1,422	2,086		3,508	2,086		5,594	2,086	(7,680)	
28	Wood trellis	2,640	437	367		804	367		1,171	367		1,539
29	Wood shed	8,000	946	441		1,387	441		1,828	441		2,269
30	Oyster shell path, refurb	5,700	497	867		1,364	867		2,231	867		3,098
SITE COMPONENT (cont.)												
31	Water laterals	16,000		889		889	889		1,778	889		2,667
32	Sanitary laterals	14,000		778		778	778		1,556	778		2,333
33	Bldg piping, water supply (10% allow)	45,000	9,804	35,196	(45,000)		4,500		4,500	4,500		9,000
34	Bldg piping, sanitary (10% allowance)	36,000		2,250		2,250	2,250		4,500	2,250		6,750
35	Stormwater mgmt (10% allowance)	7,000		389		389	389		778	389		1,167
36	Irrigation controls	10,000	327	569		896	569		1,465	569		2,034
BUILDING EXTERIOR, GENERAL												

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4 cont'd													
Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance	2019 Reserve Funding
37	Cedar siding/trim (20% repl w/ paintin	347,200	25,215	80,496		105,711	80,496		186,207	80,496		266,704	
38	Building lights (10% allowance)	4,400	575	1,912		2,488	1,912	(4,400)		880		880	
39	Utility and common doors	53,950	11,754	42,196	(53,950)		1,798		1,798	1,798		3,597	
40	Closet doors @ balcony decks	13,650		455		455	455		910	455		1,365	
BUILDING EXTERIOR, CONDO'S (
41	C Shingle roofing (25 yr.)	220,800	21,167	14,260		35,426	14,260		49,686	14,260		63,945	
42	C Gutter & downspout - oversize	52,700	6,124	3,327		9,451	3,327		12,777	3,327		16,104	
43	C Flat roofing, P2	23,940		2,394		2,394	2,394		4,788	2,394		7,182	
44	C Flat roofing, P3	30,030		2,730		2,730	2,730		5,460	2,730		8,190	
45	C Awning refabric	12,960	847	1,730		2,577	1,730		4,308	1,730		6,038	
46	C Awning reframe	21,600	2,588	2,112		4,701	2,112		6,813	2,112		8,926	
47	C Chimney caps	25,200	4,758	5,110		9,869	5,110		14,979	5,110		20,090	
48	C Entry stair, front railings	37,800	3,843	2,122		5,966	2,122		8,088	2,122		10,210	
49	C Entry stair, treads	72,000	7,320	4,042		11,363	4,042		15,405	4,042		19,448	
50	C Entry stair, decking	195,000	19,826	10,948		30,775	10,948		41,723	10,948		52,671	
51	C Entry stair, structural repair	455,000	46,261	25,546		71,807	25,546		97,354	25,546		122,900	
52	C Deck, railings	171,000	29,805	35,299		65,104	35,299		100,402	35,299		135,701	
53	C Deck, decking (20% allowance)	85,000		5,313		5,313	5,313		10,625	5,313		15,938	
54	C Deck, structural repair (20% allow)	68,000	2,963	4,065		7,028	4,065		11,093	4,065		15,157	
55	C Mailboxes, cluster	14,400	2,151	1,114		3,265	1,114		4,378	1,114		5,492	
BUILDING EXTERIOR, TOWNHOM													
56	TH Shingle roofing (25 yr.)	19,680	2,401	1,571		3,972	1,571		5,543	1,571		7,114	
57	TH Gutter & downspout	2,100	290	165		454	165		619	165		783	
58	TH Chimney caps	2,850	522	582		1,104	582		1,686	582		2,268	
59	TH Deck & entry, railings	14,250	2,484	2,942		5,425	2,942		8,367	2,942		11,308	
60	TH Deck & entry, decking	7,600		475		475	475		950	475		1,425	
61	TH Deck & entry, structural replace	20,000	871	1,196		2,067	1,196		3,263	1,196		4,458	
POOL BUILDING (PB) & POOL													
62	PB Roofing (25 yr.)	4,000	767	1,078		1,845	1,078		2,922	1,078	(4,000)		
63	PB Gutter & downspout	1,000	196	268		464	268		732	268	(1,000)		
64	PB Doors	3,900	850	3,050	(3,900)		156		156	156		312	
65	PB Restrooms	10,000	2,179	7,821	(10,000)		667		667	667		1,333	
66	PB Water heater	1,100	240	860	(1,100)		110		110	110		220	
67	Pool structure	79,950	9,000	2,447		11,446	2,447		13,893	2,447		16,339	
68	Pool white coat	12,300	1,251	1,381		2,632	1,381		4,013	1,381		5,394	
69	Pool coping & waterline tile	8,300		553		553	553		1,107	553		1,660	
70	Pool cover	1,620	35	176		211	176		387	176		564	
71	Pool deck, concrete	12,100	1,933	1,271		3,204	1,271		4,475	1,271		5,746	
72	Pool deck railing	9,300	946	522		1,468	522		1,990	522		2,512	
73	Pool deck, wood synthetic decking	13,500	1,373	758		2,131	758		2,889	758		3,646	
74	Pool deck, wood structure	22,500	2,288	1,263		3,551	1,263		4,814	1,263		6,077	
75	Pool deck, wood structure refastening	5,000	1,089	3,911	(5,000)		167		167	167		333	
76	Pool pump	1,200	261	939	(1,200)		120		120	120		240	
77	Pool filter system	1,800	314	372		685	372		1,057	372		1,428	
78	Pool furniture	1,500		300		300	300		600	300		900	
79	Pool fencing	5,760	753	835		1,587	835		2,422	835		3,256	
80	Pool wood retaining wall	16,250	2,124	785		2,909	785		3,694	785		4,479	
RACQUETBALL (RB) & COURTS													
81	RB Roofing	5,600	1,074	1,509		2,582	1,509		4,091	1,509	(5,600)		
82	RB Gutters & downspouts	1,080	212	289		501	289		791	289	(1,080)		
83	RB Windows	2,025	412	807		1,218	807	(2,025)		68		68	
84	RB Exterior doors	1,800	361	720		1,080	720	(1,800)		72		72	
85	RB Refurbish interior	24,000	4,532	9,734		14,266	9,734	(24,000)		1,600		1,600	
86	RB Heat pump	10,000	581	856		1,437	856		2,294	856		3,150	
87	Tennis court - color coat	10,000	2,179	7,821	(10,000)		2,000		2,000	2,000		4,000	
88	Tennis court - asphalt surface	36,000	3,530	2,952		6,481	2,952		9,433	2,952		12,385	
89	Tennis court - posts & footing	5,200	510	426		936	426		1,363	426		1,789	
90	Tennis court - fencing	11,040	1,082	905		1,988	905		2,893	905		3,798	
MARINA													
91	Wood boardwalk, deck & structure	145,000	10,530	13,447		23,977	13,447		37,424	13,447		50,871	
92	Wood bulkhead	148,750	12,963	7,544		20,507	7,544		28,051	7,544		35,594	
93	Wood bulkhead	28,600	3,116	1,699		4,815	1,699		6,513	1,699		8,212	
94	Pier decking	66,000	4,793	6,121		10,914	6,121		17,035	6,121		23,155	
95	Pier structure	150,000	21,787	12,821		34,608	12,821		47,430	12,821		60,251	
96	Pilings	234,900	39,805	19,509		59,315	19,509		78,824	19,509		98,334	
97	Kayak ramp	17,051		1,137		1,137	1,137		2,273	1,137		3,410	

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?



<http://bcove.me/nc0o69t7>

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



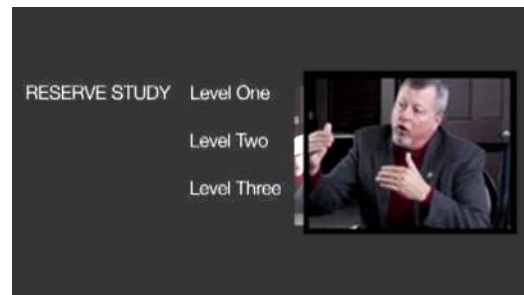
<http://bcove.me/stt373hj>

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



<http://bcove.me/81ch7kit>

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



<http://bcove.me/ixis1yxm>

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



<http://bcove.me/81ch7kit>

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



<http://bcove.me/fazwdk3h>

clients?

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



<http://bcove.me/n6nwnktv>

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



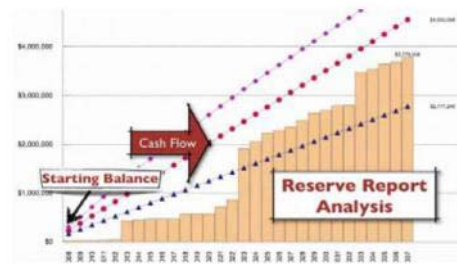
<http://bcove.me/2vfih1tz>

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



<http://bcove.me/wb2fugb1>

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



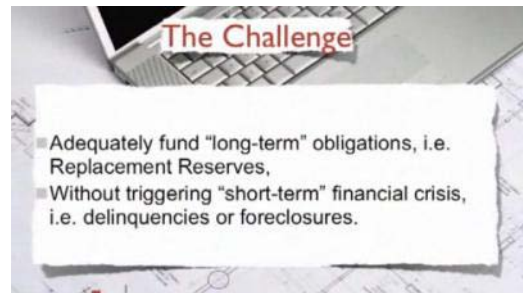
<http://bcove.me/7buer3n8>

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



<http://bcove.me/s2tmtj9b>

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



<http://bcove.me/iqul31vq>