REPLACEMENT RESERVE REPORT FY 2011

CORROTOMAN BY THE BAY HOA

Community Management by:

Corrotoman by the Bay HOA

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LANCASTER, VIRGINIA

Scope. Corrotoman by the Bay is a home owners association located in Lancaster, Virginia. The community was constructed in 1967 and there are 631 single family home lots with 140 single family homes constructed. The survey examined the common elements of the property, including:

- Asphalt roads, clubhouse parking, and gravel roads.
- Concrete sidewalk at clubhouse.
- Entrance feature and vinyl fencing.
- Picnic shelter and storage buildings.
- Swimming pool, tennis courts, and play equipment.
- Community building interior and exterior.
- Pier, bulkhead, and boat ramp.

Level of Service. This study has been performed as a Level I, Full Service Reserve Study as defined under the National Reserve Study Standards that have been adopted by the Community Associations Institute. As such, a complete component inventory was established based on information regarding commonly-owned components provided by the community manager and upon quantities derived from field measurement and/or quantity takeoffs from to-scale engineering drawings. The condition of all commonly-owned components was ascertained from a site visit and the visual inspection of each component by the Analyst. The life expectancy and the value of the components are provided based in part on these observations. The fund status and funding plan have been derived from analysis of this data.

Purpose. The purpose of this Replacement Reserve Study is to provide Corrotoman by the Bay (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 Replacement Reserve Inventory 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 Replacement Reserve Inventory includes our estimates of the normal economic life and the remaining economic life for the projected replacements. Section C Calendar of Projected Annual Replacements provides a year-by-year listing of the projected replacements. Section D Condition Assessment 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 two generally accepted accounting methods; the Cash Flow Method and the Component Method. Section A Replacement Reserve Analysis includes graphic and tabular presentations of these methods and current Association funding. An Executive Summary of these calculations is provided on Page A1.

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

- The Request for Proposal submitted and executed by the Association.

- Our visual evaluation and measurements on March 14, 2011. Miller - Dodson Associates has visually inspected the common elements of the property in order to ascertain the remaining useful life and the replacement costs of these components.

Engineering Drawings. No architectural drawings or engineering site plans were available for review in connection with this study. We recommend the Association assemble a library of site and building plans of the entire community. Reproducible drawings should be stored and kept in a secure fireproof location. The Association will find these drawings to be a valuable resource in planning and executing future projects.

Current Funding. This reserve study has been prepared for Fiscal Year 2011 covering the period from March 1, 2011 to February 28, 2011. The Replacement Reserves on deposit as of March 1, 2011 are reported to be $0. The planned contribution for the fiscal year is $0.

The balance and contribution figures have been supplied by the property management 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 Mr. John Cooper. He provided very helpful insight into the current operations at the property.

Analyst's Credentials. Mr. Eric D. Kinder holds a Bachelor of Architecture from Virginia Tech. Mr. Kinder has been a Registered Professional Architect in the Commonwealth of Virginia since 1996. Since 2002, Mr. Kinder has provided commercial and residential architectural services in the Richmond area

through the firm of Eric D. Kinder Architect. He is currently a Reserve Analyst for Miller - Dodson Associates, Inc.

Respectfully submitted,
MILLER - DODSON ASSOCIATES, INC.

Eric D. Kinder
Reserve Analyst

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EXECUTIVE SUMMARY

The Corrotoman by the Bay Replacement Reserve Inventory identifies 101 Projected Replacements for funding from Replacement Reserves, with an estimated one-time replacement cost of $727,238.

The Replacement Reserve Analysis calculates recommended funding of Replacement Reserves by the two generally accepted methods, the Cash Flow Method and the Component Method. The Analysis also evaluates current funding of Replacement Reserves, as reported by the Association. The calculations and evaluation are summarized below:

$65,582 **CASH FLOW METHOD MINIMUM ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2011.**

The Cash Flow Method (CFM) calculates Minimum Annual Funding of Replacement Reserves that will fund Projected Replacements identified in the Replacement Reserve Inventory from a common pool of Replacement Reserves and prevent Replacement Reserves from dropping below a Minimum Recommended Balance.

CFM - Minimum Annual Funding remains the same between peaks in cumulative expenditures called Peak Years.

The first Peak Year occurs in 2011 and the CFM - Minimum Annual Funding of Replacement Reserves in 2012 declines to $42,102 , after the completion of $29,221 of replacements in the Study Year, 2011.

A subsequent Peak Year and decline in the Cash Flow Method, Minimum Annual Funding, occurs in 2027.

$89,110 **COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2011.**

The Component Method is a time tested and very conservative funding model developed by HUD in the early 1980's.

The Component Method treats each projected replacement in the Replacement Reserve Inventory as a separate account. Deposits are made to each individual account, where funds are held for exclusive use by that item.

Based on this funding model, the Association has a Current Funding Objective of $338,080.

The Association reports having NO Replacement Reserves on Deposit ($0 Starting Balance).

None **CURRENT ANNUAL FUNDING OF REPLACEMENT RESERVES (as reported by the Association).**

The evaluation of Current Funding, as reported by the Association, has calculated that if the Association continues to fund Replacement Reserves at the current level, there will NOT be adequate funds for Projected Replacements in 30 years of the 30-year Study Period, and a maximum shortfall of $-1,041,477 occurs in 2040.

Pages A2 and A3 explain the Study Year, Study Period, Adjustments (interest & inflation), Beginning Balance, and Projected Replacements. Pages A4 to A9 explain in more detail the calculations associated with the Cash Flow Method, Component Method, and Current Funding.

REPLACEMENT RESERVE STATUS AND FUNDING PLAN

The Association reports that they are not currently funding Replacement Reserves.

We recommend the Association adopt a Replacement Reserve Funding Plan based on the Cash Flow Method or the Component Method, to ensure that adequate funding is available throughout the 30-Year Study Period for the $1,041,477 of Projected Replacements listed in the Corrotoman by the Bay Replacement Reserve Inventory.

The Funding Plan should be professionally evaluated every three to five years or after completion of each major replacement project. The Board of Directors has a fiduciary responsibility to review the Funding Plan annually and should consider annual increases in Replacement Reserve funding at least equal to the Consumer Price Index.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Corrotoman by the Bay Replacement Reserve Analysis calculations of recommended funding of Replacement Reserves by the Cash Flow Method and the Component Method, and the evaluation of the Current Funding, are based upon the same General Information; including the Study Year, Study Period, Adjustments (for interest, inflation, and/or a constant increase in annual funding), Beginning Balance, and Projected Replacements:

STUDY YEAR

The Association reports that their accounting year begins on March 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on March 1, 2010.

STUDY PERIOD

The Replacement Reserve Analysis evaluates the funding of Replacement Reserves over a 30-year Study Period that begins on March 1, 2010.

ADJUSTMENTS

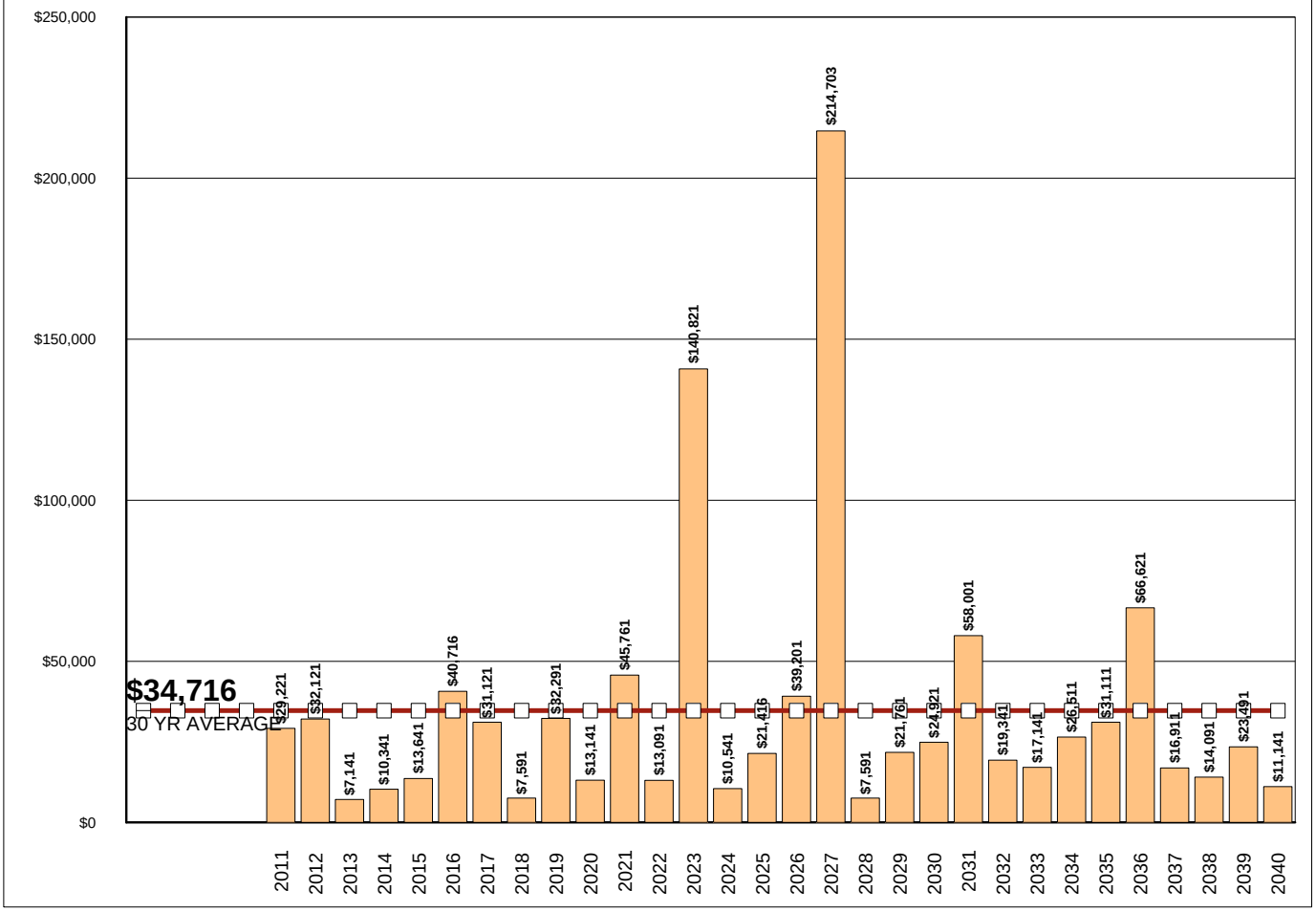
The calculations in this Replacement Reserve Analysis do not account for interest earned on Replacement Reserves, the effects of inflation on the costs of Projected Replacements, or a constant annual increase in Annual Funding of Replacement Reserves. If requested, we will provide a Replacement Reserve Analysis with adjustments for inflation, interest, and/or a constant annual increase in funding, using values provided by the Association.

BEGINNING BALANCE

The Association reports Replacement Reserves on Deposit totaling $0 at the start of the Study Year.

Graph #1. Annual Expenditures for Projected Replacements

This bar graph summarizes annual expenditures for the $1,041,477 of Projected Replacements identified in the Replacement Reserve Inventory over the 30-year Study Period. The red line shows the average annual expenditure of $34,716.



PROJECTED REPLACEMENTS

The Corrotoman by the Bay Replacement Reserve Inventory (Section B) identifies 101 Projected Replacements with a one-time Replacement Cost of $727,238 and replacements totaling $1,041,477 over the 30-year Study Period. Projected Replacements are the replacement of commonly-owned items that:

require periodic replacement and
whose replacement is to be funded from Replacement Reserves.

The Replacement Reserve Inventory also identifies 44 Excluded Items. Expenditures for the replacement of 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 rationale behind these exclusions is discussed in detail on Page B1.

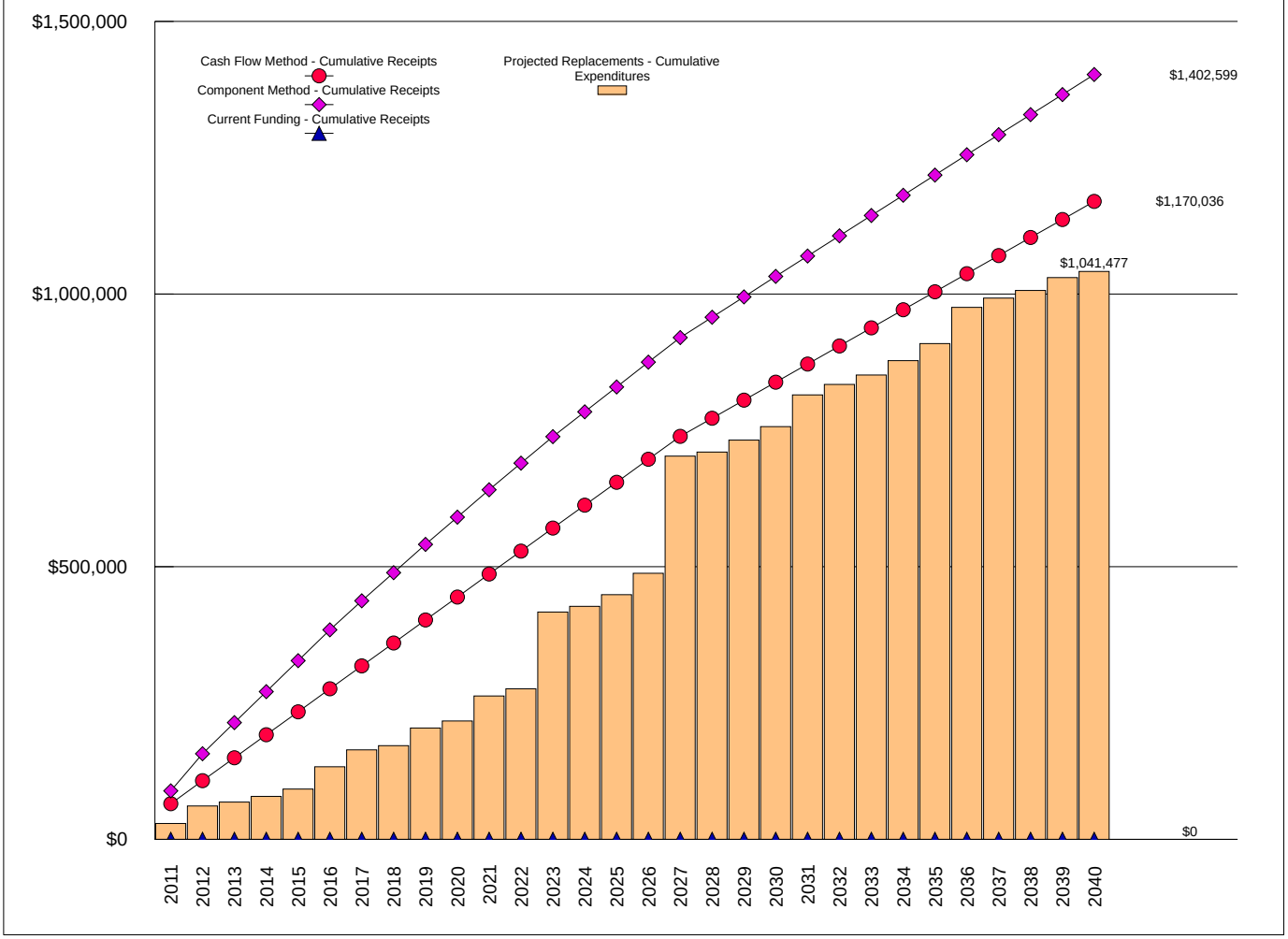
Expenditures from Replacements Reserves should be made only after consultation with an accounting professional.

The Section B - Replacement Reserve Inventory, contains Tables that list each Projected Replacement (and any Excluded Items) broken down into 15 major categories (Pages B3 to B16). Tables are also included that list each Projected Replacement by year for each of the 30 years of the Study Period beginning on Page C1.

The accuracy of this Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made only for the Projected Replacements specifically listed in the Replacement Reserve Inventory.

Graph #2. Comparison of Cumulative Replacement Reserve Funding and Expenditures

The line graph shows Replacement Reserves - Cumulative Receipts over the 30-year Study Period by the Cash Flow Method (red circles), Component Method (purple diamonds), and the Current Funding Plan as reported by the Association (blue triangles). The bar graph shows the Cumulative Expenditures necessary to fund the Project Replacements listed in the Replacement Reserve Inventory (Section B) and summarized in Graph #1.



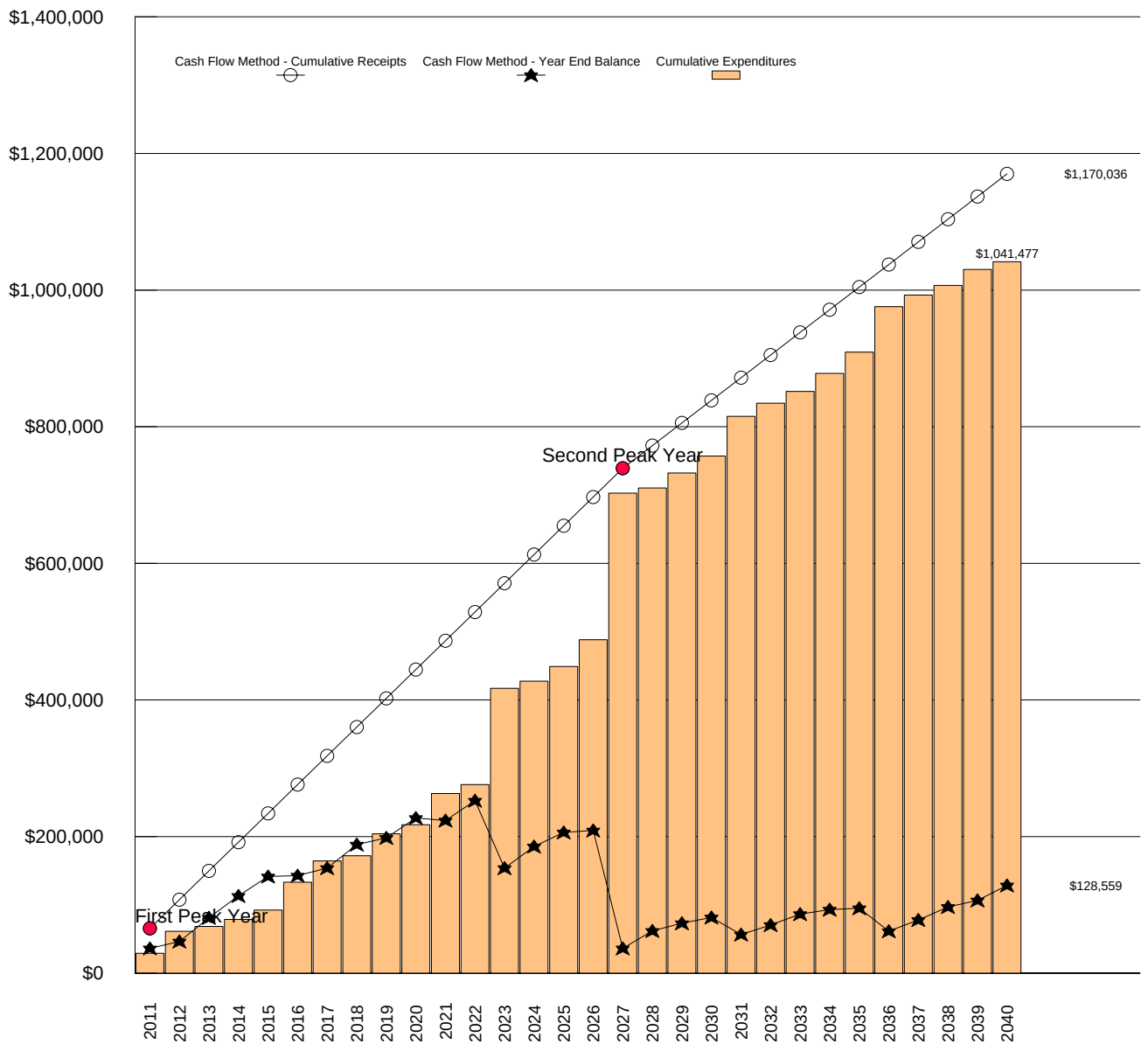
CASH FLOW METHOD

$65,582 **CASH FLOW METHOD MINIMUM ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2011.**

General. The Cash Flow Method is founded on the concept that the Replacement Reserve Account is solvent if cumulative receipts always exceed cumulative expenses. The Cash Flow Method calculates a MINIMUM annual deposit to Replacement Reserves that will:

- Fund all Projected Replacements listed in the Replacement Reserve Inventory (see Section B)
- Prevent Replacement Reserves from dropping below the Minimum Recommended Balance (see Page A-5)
- Allow a constant annual funding level between peaks in cumulative expenditures

Graph #3. Cash Flow Method - Cumulative Receipts and Expenditures Graph



CASH FLOW METHOD (cont'd)

- Replacement Reserves - Minimum Recommended Balance. The Minimum Recommended Balance is $36,362, which is 5.0 percent of the one-time replacement cost of the Projected Replacements listed in the Replacement Reserve Inventory. Unless otherwise noted in the Comments on Page A-9, the Minimum Recommended Balance has been established by the Analyst based upon an evaluation of the types of items included in the Replacement Reserve Inventory.
- Peak Years. The Cash Flow Method calculates a constant annual funding of Replacement Reserves between peaks in cumulative expenditures called Peak Years. In Peak Years, Replacement Reserves on Deposit decline to the Replacement Reserves - Minimum Recommended Balance discussed in the paragraph above.

  First Peak Year. The First Peak Year occurs in 2011, after the completion of $29,221 of replacements in the Study Year, 2011. The Cash Flow Method - Minimum Annual Funding of Replacement Reserves declines fror $65,582 in 2011 to $42,102 in 2012.

  Subsequent Peak Year. A subsequent Peak Year and decline in the Cash Flow Method - Minimum Annual Funding, occurs in: 2027.
- Study Period. The Cash Flow Method calculates the recommended contributions to Replacement Reserves over the 30-year Study Period. These calculations are based upon a 40-year projection of expenditures for Projected Replacements to avoid the Replacement Reserve balance dropping to the Minimum Recommended Balance in the final year of the Study Period.
- Failure to Fund. The Cash Flow Method calculates a MINIMUM annual funding of Replacement Reserves. Failure to fund Replacement Reserves at the minimum level calculated by the Cash Flow Method will result in Replacement Reserves not being available for the Projected Replacements listed in the Replacement Reserve Inventory and/or Replacement Reserves dropping below the Minimum Recommended Balance.
- Adjustment to the Cash Flow Method for interest and inflation. The calculations in this Replacement Reserve Analysis do not account for interest earned on Replacement Reserves, the effects of inflation of the cost of Projected Replacements, or a constant annual increase in Annual Funding of Replacement Reserves.
- Comparison of Cash Flow Funding and Average Annual Expenditure. The Average Annual Expenditure for Projected Replacements listed in the Reserve Inventory over the 30-year Study Period is $34,716 (see Graph #1). The Cash Flow Method - Minimum Annual Funding of Replacement Reserves in the Study Year is $65,582. This is 188.9 percent of the Average Annual Expenditure, indicating that the Association is building Replacement Reserves in advance of the first Peak Year in 2011.

Table #1. Cash Flow Method Data - Years 1 through 30

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Beginning balance										
Minimum annual funding	$65,582	$42,102	$42,102	$42,102	$42,102	$42,102	$42,102	$42,102	$42,102	$42,102
Expenditures	$29,221	$32,121	$7,141	$10,341	$13,641	$40,716	$31,121	$7,591	$32,291	$13,141
Year end balance	$36,362	$46,343	$81,305	$113,066	$141,527	$142,914	$153,895	$188,407	$198,218	$227,179
Minimum recommended balance	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362
Cumulative expenditures	$29,221	$61,341	$68,482	$78,822	$92,463	$133,178	$164,299	$171,889	$204,180	$217,320
Cumulative receipts	$65,582	$107,684	$149,786	$191,888	$233,990	$276,092	$318,194	$360,296	$402,398	$444,499
	First Peak Year									

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Minimum annual funding	$42,102	$42,102	$42,102	$42,102	$42,102	$42,102	$42,102	$33,140	$33,140	$33,140
Expenditures	$45,761	$13,091	$140,821	$10,541	$21,416	$39,201	$214,703	$7,591	$21,761	$24,921
Year end balance	$223,521	$252,532	$153,814	$185,375	$206,061	$208,963	$36,362	$61,912	$73,291	$81,511
Minimum recommended balance	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362
Cumulative expenditures	$263,081	$276,171	$416,992	$427,532	$448,948	$488,148	$702,851	$710,441	$732,202	$757,122
Cumulative receipts	$486,601	$528,703	$570,805	$612,907	$655,009	$697,111	$739,213	$772,353	$805,493	$838,633
							Second Peak Year			

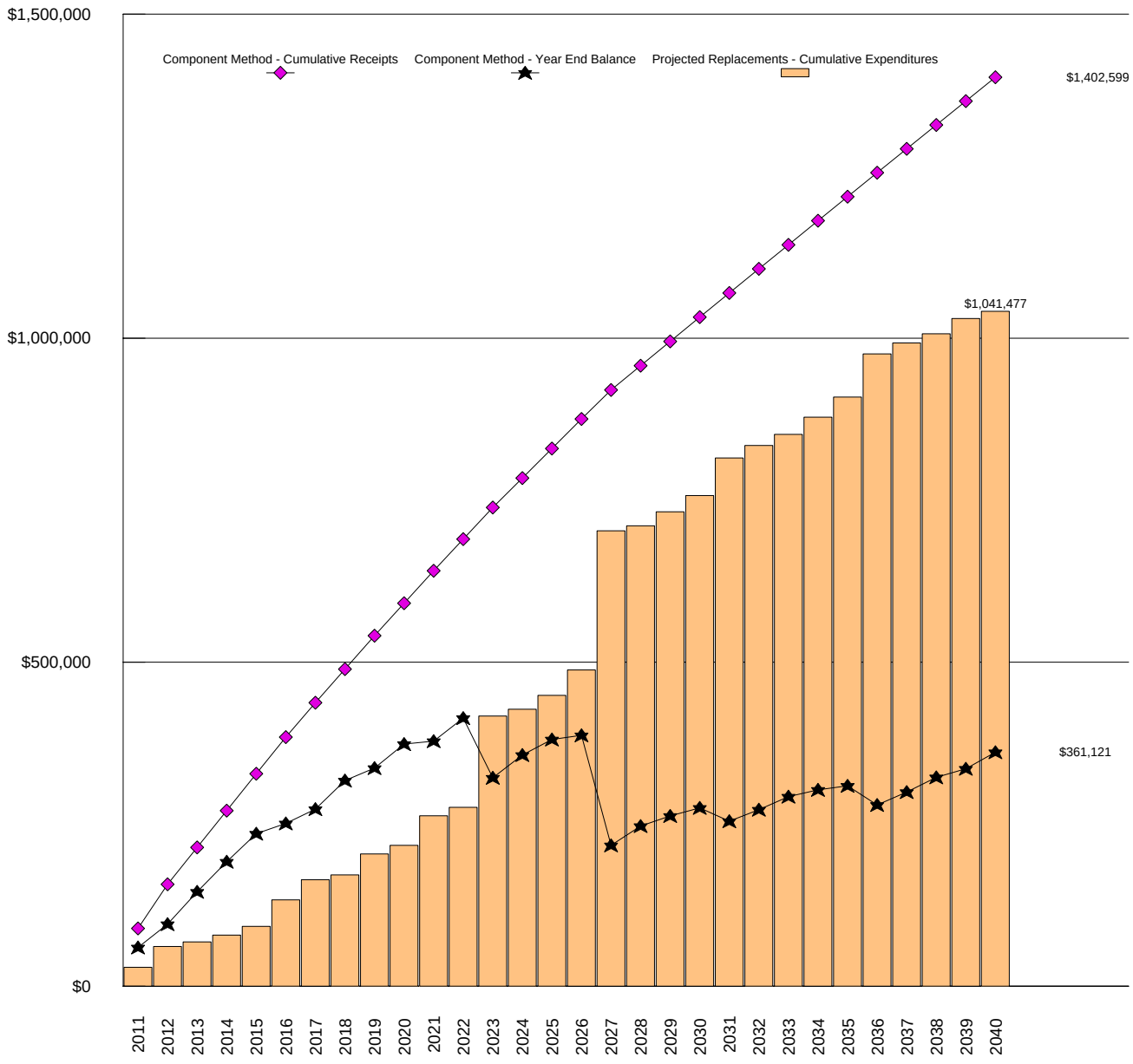
Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Minimum annual funding	$33,140	$33,140	$33,140	$33,140	$33,140	$33,140	$33,140	$33,140	$33,140	$33,140
Expenditures	$58,001	$19,341	$17,141	$26,511	$31,111	$66,621	$16,911	$14,091	$23,491	$11,141
Year end balance	$56,651	$70,451	$86,451	$93,080	$95,110	$61,630	$77,860	$96,909	$106,559	$128,559
Minimum recommended balance	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362	$36,362
Cumulative expenditures	$815,123	$834,463	$851,604	$878,114	$909,225	$975,845	$992,756	$1,006,846	$1,030,337	$1,041,477
Cumulative receipts	$871,774	$904,914	$938,054	$971,195	$1,004,335	$1,037,475	$1,070,615	$1,103,756	$1,136,896	$1,170,036

COMPONENT METHOD

$89,110 **COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2011.**

General. The Component Method is a time tested and very conservative mathematical model developed by HUD in the early 1980s. Each of the 101 Projected Replacements listed in the Replacement Reserve Inventory is treated as a separate account. The Beginning Balance is allocated to each of these 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 the Recommended Annual Funding of Replacement Reserves is a multi-step process outlined in more detail on Page A7.

Graph #4. 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 101 Projected Replacements. The total, $338,080, 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 ($0) by the Current Funding Objective ($338,080). At Corrotoman by the Bay the Funding Percentage is 0.0%

- Allocation of the Beginning Balance. The Beginning Balance is divided among the 101 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 0.0 percent funded, there is $0 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 $89,110, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2011).

  In our fence example, the $0 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 $500. Next year, the deposit remains $500, 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, the effects of inflation of the cost of Projected Replacements, or a constant annual increase in Annual Funding of Replacement Reserves.

Table #2. Component Method Data - Years 1 through 30

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Beginning balance										
Recommended annual funding	$89,110	$68,107	$56,907	$56,907	$56,881	$56,486	$53,145	$51,690	$51,679	$50,159
Expenditures	$29,221	$32,121	$7,141	$10,341	$13,641	$40,716	$31,121	$7,591	$32,291	$13,141
Year end balance	$59,889	$95,876	$145,643	$192,210	$235,450	$251,221	$273,246	$317,345	$336,734	$373,753
Cumulative Expenditures	$29,221	$61,341	$68,482	$78,822	$92,463	$133,178	$164,299	$171,889	$204,180	$217,320
Cumulative Receipts	$89,110	$157,217	$214,125	$271,032	$327,913	$384,399	$437,544	$489,234	$540,914	$591,073
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Recommended annual funding	$50,126	$48,742	$48,742	$45,553	$45,547	$45,496	$44,926	$37,419	$37,419	$37,399
Expenditures	$45,761	$13,091	$140,821	$10,541	$21,416	$39,201	$214,703	$7,591	$21,761	$24,921
Year end balance	$378,118	$413,769	$321,691	$356,703	$380,835	$387,130	$217,353	$247,181	$262,839	$275,317
Cumulative Expenditures	$263,081	$276,171	$416,992	$427,532	$448,948	$488,148	$702,851	$710,441	$732,202	$757,122
Cumulative Receipts	$641,199	$689,940	$738,682	$784,235	$829,782	$875,278	$920,204	$957,622	$995,041	$1,032,440
Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Recommended annual funding	$37,399	$37,148	$37,148	$37,148	$37,148	$37,060	$36,826	$36,761	$36,761	$36,761
Expenditures	$58,001	$19,341	$17,141	$26,511	$31,111	$66,621	$16,911	$14,091	$23,491	$11,141
Year end balance	$254,716	$272,523	$292,530	$303,168	$309,205	$279,645	$299,561	$322,231	$335,501	$361,121
Cumulative Expenditures	$815,123	$834,463	$851,604	$878,114	$909,225	$975,845	$992,756	$1,006,846	$1,030,337	$1,041,477
Cumulative Receipts	$1,069,838	$1,106,986	$1,144,134	$1,181,282	$1,218,430	$1,255,490	$1,292,317	$1,329,077	$1,365,838	$1,402,599

CURRENT FUNDING

● **None** **CURRENT ANNUAL FUNDING OF REPLACEMENT RESERVES (as reported by the Association).**

General. Our evaluation of the Current Association Funding assumes that the Association will continue to fund Replacement Reserves at the current level of $0 per year in each of the 30 years of the Study Period.

Our evaluation is based upon this Replacement Reserve Funding Level, a $0 Beginning Balance, the Projected Annual Replacement Expenditures shown in Graph #1 and listed in the Replacement Reserve Inventory, and any interest, inflation rate, or constant annual increase in annual contribution adjustments discussed below.

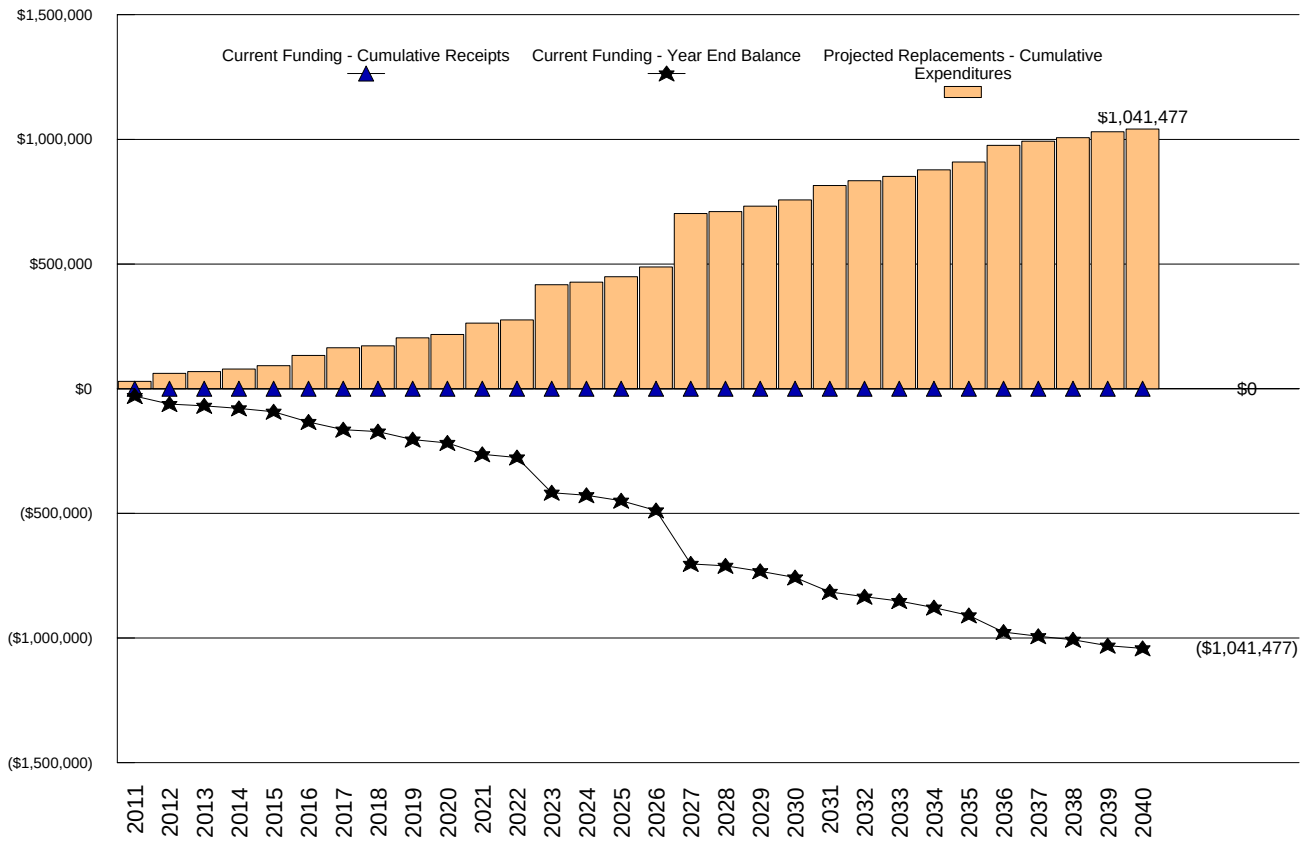
- Evaluation. Our calculations have determined that Current Annual Funding of Replacement Reserves, as reported by the Association, is inadequate to fund Projected Replacement beginning in 2011.

  The Current Annual Funding of Replacement Reserves results in insufficient funds to make Projected Replacements in 30 years of the 30-year Study Period, and a maximum shortfall of $-1,041,477 occurs in 2040.

- Adjustment to the Current Association Funding for interest and inflation. The Calculations in the Replacement Reserve Analysis do not account for interest earned on Replacement Reserves, the effects of inflation of the cost of Projected Replacements, or a constant annual increase in Annual Funding of Replacement Reserves.

- Comparison of Current Association Funding and Average Annual Expenditure. The average annual expenditure for Projected Replacements listed in the Reserve Inventory over the 30-year Study Period is $34,716 (see Graph #1). Current Association annual funding of Replacement Reserves is $0, or approximately 0 percent of the Average Annual Expenditure.

Graph #5. Current Association Funding - Cumulative Receipts and Expenditures Graph



CURRENT FUNDING (cont'd)

Table #3. Current Funding Data - Years 1 through 30

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Beginning balance										
Annual deposit										
Expenditures	$29,221	$32,121	$7,141	$10,341	$13,641	$40,716	$31,121	$7,591	$32,291	$13,141
Year end balance	($29,221)	($61,341)	($68,482)	($78,822)	($92,463)	($133,178)	($164,299)	($171,889)	($204,180)	($217,320)
Cumulative Expenditures	$29,221	$61,341	$68,482	$78,822	$92,463	$133,178	$164,299	$171,889	$204,180	$217,320
Cumulative Receipts										

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual deposit										
Expenditures	$45,761	$13,091	$140,821	$10,541	$21,416	$39,201	$214,703	$7,591	$21,761	$24,921
Year end balance	($263,081)	($276,171)	($416,992)	($427,532)	($448,948)	($488,148)	($702,851)	($710,441)	($732,202)	($757,122)
Cumulative expenditures	$263,081	$276,171	$416,992	$427,532	$448,948	$488,148	$702,851	$710,441	$732,202	$757,122
Cumulative receipts										

Year	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Annual deposit										
Expenditures	$58,001	$19,341	$17,141	$26,511	$31,111	$66,621	$16,911	$14,091	$23,491	$11,141
Year end balance	($815,123)	($834,463)	($851,604)	($878,114)	($909,225)	($975,845)	($992,756)	($1,006,846)	($1,030,337)	($1,041,477)
Cumulative Expenditures	$815,123	$834,463	$851,604	$878,114	$909,225	$975,845	$992,756	$1,006,846	$1,030,337	$1,041,477
Cumulative Receipts										

COMMENTS ON THE REPLACEMENT RESERVE ANALYSIS

- This Replacement Reserve Study has been developed in compliance with the Community Associations Institute, National Reserve Study Standards, for a Level One Study - Full Service.
- Corrotoman by the Bay - the type of property is a home owners association.
- Our calculations assume that Replacement Reserves are not subject to tax.

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REPLACEMENT RESERVE INVENTORY
GENERAL INFORMATION

Corrotoman by the Bay - Replacement Reserve Inventory identifies 145 items. Two types of items are identified, Projected Replacements and Excluded Items:

- PROJECTED REPLACEMENTS. 101 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 $727,238. Replacements totaling $1,041,477 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. 44 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, partial replacements, repairs, capital improvements, and one-time only replacements.

  Value. Items with a replacement cost of less that $1,000 are typically excluded from funding from Replacement Reserves. This exclusion is made to accurately reflect how Replacement Reserves are administered. 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 located on property 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' section of it's page of the Replacement Reserve Inventory.

- CATEGORIES. The 145 items included in the Corrotoman by the Bay Replacement Reserve Inventory are divided into 15 major categories. Each category is printed on a separate page, Pages B3 to B16.

- LEVEL OF SERVICE. This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level One Study - Full Service, as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

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

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- INVENTORY DATA. Each of the 101 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 named each item included in the Inventory. Where the name of the item and the category are not sufficient to specifically identify the item, we have included additional information in the Comments section at the bottom of the page.

  Units. We have used standard abbreviations to identify the number of units including SF-square feet, FT-feet, SY-square yard, LS-lump sum, EA-each, and PR-pair. Nonstandard abbreviations are noted in the Comments section on the page on which the abbreviation is used.

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

  Unit Replacement Cost. We use three sources to develop the unit cost data shown in the Inventory; actual replacement cost data provided by the client, industry standard estimating manuals, and a cost database that we have developed based upon our detailed interviews with contractors and service providers who are specialists in their respective lines of work. In addition, trends in the Producers Price Index (PPI), labor rates, and transportation costs are monitored and considered. This cost database is reviewed and updated regularly by Miller Dodson and biannually by an independent professional cost estimating firm.

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

  Economic Life Remaining (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 44 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. All expenditures from Replacement Reserves should be made only after consultation with an accounting professional.

- 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 on in the Comments section.

REPLACEMENT RESERVE INVENTORY - GENERAL COMMENTS

- PLEASE NOTE: For inventory items with a Remaining Economic Life greater than 40 years, the replacement projections fall outside this study's limits and are not included in the annual calculations. However, tracking these items over time will bring them within the 40 year window and they will be included in the future.

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	Asphalt pavement, patch (5%)	sf	3,550	$3.60	18	1	$12,780
2	Asphalt pavement, road overlay	sf	59,450	$1.40	18	12	$83,230
3	Asphalt pavement, parking overlay	sf	11,550	$1.40	18	5	$16,170
4	Gravel road, replenish (5%)	sf	7,135	$0.30	1	none	$2,141
5	Concrete sidewalk (20%)	sf	230	$8.50	60	5	$1,955
6	Concrete sidewalk (20%)	sf	230	$8.50	60	25	$1,955
7	Concrete sidewalk (20%)	sf	230	$8.50	60	45	$1,955
8	Fence, 3-rail (vinyl) @ clubhouse	lf	290	$23.00	25	16	$6,670
9	Vinyl screen, 6' h x 12' w @ clubhouse	lf	72	$23.00	25	16	$1,656
10	Entry monument sign	ls	1	$1,000.00	15	9	$1,000
11	Sign & post, street	ea	20	$125.00	10	9	$2,500
12	Septic tank & field, clubhouse	ls	1	$8,000.00	40	8	$8,000

SITE COMPONENT - Replacement Costs - Subtotal $140,012

SITE COMPONENT
COMMENTS

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

- "Gravel road, replenish (5%)" based on Association experience of spending approximately $2,000 per year on repairs and additional gravel.

BUILDING EXTERIOR
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
13	CH - Shingle asphalt/fiberglass	sf	2,480	$2.75	30	24	$6,820
14	CH - Gutter & downspout, 5" aluminum	ft	175	$6.00	30	24	$1,050
15	CH - Siding & trim, vinyl	sf	1,575	$5.25	25	16	$8,269
16	CH - Window, opening	sf	185	$42.00	35	26	$7,770
17	CH - Entry door, solid wood, fan lite	ea	1	$900.00	20	10	$900
18	CH - Entry door, metal, 1/2 glass	ea	1	$800.00	20	5	$800
19	CH - Entry door, metal, 6-panel	ea	1	$750.00	20	10	$750
20	CH - Entry door, wood, 6-panel	ea	2	$700.00	20	10	$1,400
21	CH - Storm doors	ea	5	$300.00	15	10	$1,500
22	SS - Shingle asphalt/fiberglass	sf	830	$2.75	30	24	$2,283
23	SS - Siding & trim, vinyl	sf	750	$5.25	25	16	$3,938
24	SS - Window, opening	sf	30	$42.00	35	10	$1,260
25	SS - Entry door, wood, 1/2 glass	ea	1	$325.00	20	10	$325
26	SS - Garage door, fiberglass, 7x12	ea	1	$1,500.00	20	8	$1,500
27	P - Shingle asphalt/fiberglass	sf	1,090	$2.75	30	24	$2,998
28	P - Siding & trim, wood	sf	425	$5.00	20	10	$2,125
29	P - Concrete slab	sf	745	$10.00	60	39	$7,450
30	GS - Shed replace	ea	1	$2,750.00	30	12	$2,750
				BUILDING EXTERIOR - Replacement Costs - Subtotal			$53,886

BUILDING EXTERIOR
COMMENTS

- CH = clubhouse, SS = storage shed, P = picnic shelter, GS = garden shed.

CLUBHOUSE BUILDING INTERIOR
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
31	Flooring, interior carpet	sf	1,400	$4.25	7	4	$5,950
32	Flooring, vinyl sheet goods, kitchen	sf	200	$5.00	14	10	$1,000
33	Flooring, ceramic, men's room	sf	125	$16.00	21	15	$2,000
34	Flooring, ceramic, women's room	sf	120	$16.00	21	18	$1,920
35	Wall tile, ceramic, men's room	sf	135	$12.00	21	15	$1,620
36	Interior lighting, general	ea	12	$85.00	21	12	$1,020
37	Ceiling fan	ea	5	$200.00	15	8	$1,000
38	Kitchen, cabinets	lf	22	$200.00	21	6	$4,400
39	Kitchen, laminate countertop	lf	22	$50.00	21	6	$1,100
40	Kitchen, range, Jenn-Air	ea	1	$1,500.00	10	9	$1,500
41	Kitchen, range, GE	ea	1	$550.00	10	4	$550
42	Kitchen, refrigerator, GE	ea	1	$1,000.00	10	6	$1,000
43	Kitchen, refrigerator, Frigidaire	ea	1	$650.00	10	8	$650
44	Restroom, renovate, men's	sf	125	$50.00	21	15	$6,250
45	Restroom, renovate, women's	sf	120	$50.00	21	15	$6,000
46	Office furnishings, allowance	ls	1	$1,000.00	12	8	$1,000
47	Computer station, desktop	ea	1	$1,200.00	5	3	$1,200
48	Office equipment (allowance)	ls	1	$1,000.00	5	3	$1,000
						CLUBHOUSE BUILDING INTERIOR - Replacement Costs - Subtotal	$39,160

CLUBHOUSE BUILDING INTERIOR
COMMENTS

BUILDING INTERIOR (cont.)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
49	Love seats	ea	2	$500.00	10	5	$1,000
50	Upholstered chair, large	ea	1	$350.00	10	5	$350
51	End table	ea	3	$225.00	18	14	$675
52	Table lamp	ea	3	$150.00	10	7	$450
53	Book shelf, 30" w x 72" h	ea	2	$250.00	21	18	$500
54	Book shelf, 30" w x 42" h	ea	3	$200.00	21	18	$600
55	Artwork	ls	1	$1,250.00	18	14	$1,250
56	Stack chair	ea	21	$45.00	14	10	$945
57	Folding chair	ea	30	$45.00	14	10	$1,350
58	Folding chair, upholstered	ea	11	$175.00	14	10	$1,925
59	Table, laminate top	ea	10	$200.00	14	10	$2,000
60	Misc. tables	ea	7	$150.00	14	10	$1,050
61	HVAC, furnace/ air handler - gas fired	ea	1	$6,000.00	24	16	$6,000
62	HVAC, outdoor unit, 3 ton, compressor	ea	1	$1,200.00	15	13	$1,200

BUILDING INTERIOR (cont.) - Replacement Costs - Subtotal $19,295

BUILDING INTERIOR (cont.)
COMMENTS

SWIMMING POOL
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
63	Swimming pool, structure	sf	2,340	$65.00	60	16	$152,100
64	Swimming pool, coping	ft	220	$50.00	20	16	$11,000
65	Wading pool, structure	sf	182	$65.00	60	16	$11,830
66	Wading pool, coping	ft	60	$50.00	20	16	$3,000
67	Swimming pool, concrete deck, 25%	sf	1,040	$11.00	30	10	$11,440
68	Swimming pool, concrete deck, 25%	sf	1,040	$11.00	30	15	$11,440
69	Swimming pool, concrete deck, 25%	sf	1,040	$11.00	30	20	$11,440
70	Swimming pool, concrete deck, 25%	sf	1,040	$11.00	30	25	$11,440
71	Swimming pool pump (3 hp)	ea	1	$1,000.00	3	3	$1,000
72	Swimming pool filter	ea	1	$1,800.00	20	14	$1,800
73	Swimming pool filter	ea	1	$1,800.00	20	18	$1,800
74	Pool furniture, allowance	ls	1	$1,000.00	7	5	$1,000
75	Perimeter fence - 4' (chain link)	ft	405	$16.00	30	6	$6,480

SWIMMING POOL - Replacement Costs - Subtotal $235,770

SWIMMING POOL
COMMENTS

- We have assumed that the project to replace the pool deck will include the replacement of the plumbing and electrical systems installed beneath the pavement.

COURTS & RECREATION EQUIPMENT
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
76	Tennis court, color coat	ea	2	$5,000.00	8	6	$10,000
77	Tennis court, resurface/overlay	ea	2	$18,000.00	20	12	$36,000
78	Tennis court, post & footings	ea	2	$2,600.00	20	12	$5,200
79	Tennis court, net	ea	2	$700.00	5	5	$1,400
80	Tennis court, fence	ft	450	$24.00	20	8	$10,800
81	Basketball court, concrete, replace	sf	400	$8.70	30	12	$3,480
82	Basketball pole & backstop	ea	1	$1,200.00	20	1	$1,200
83	Tot lot - arch climber	ea	1	$1,000.00	15	5	$1,000
84	Tot lot - slide	ea	1	$1,500.00	15	5	$1,500
85	Tot lot - swing	ea	1	$1,800.00	15	5	$1,800
86	Tot lot - merry-go-round	ea	1	$1,100.00	15	5	$1,100
87	Tot lot - spring toy	ea	5	$1,100.00	15	5	$5,500
88	Tot lot - Remove old equipment	ls	1	$1,000.00	50	1	$1,000
89	Picnic tables	ea	12	$200.00	15	10	$2,400

COURTS & RECREATION EQUIPMENT - Replacement Costs - Subtotal $82,380

COURTS & RECREATION EQUIPMENT
COMMENTS

- Tot lots and tot lot equipment should be evaluated annually by a playground safety specialist for compliance with the Consumer Product Safety Commission, Handbook for Public Playground Safety. Defects should be corrected immediately to protect the users of the facilities from potential injury and the Association from potential liability for those injuries.

DOCKS AND BULKHEADS
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
90	Pier decking	sf	685	$10.00	15	10	$6,850
91	Pier structure	sf	685	$16.00	30	25	$10,960
92	Piling, freestanding	ea	14	$500.00	30	25	$7,000
93	Bulkhead, cap, finish repair	lf	180	$6.00	100	none	$1,080
94	Bulkhead, cap,	lf	350	$6.00	15	16	$2,100
95	Bulkhead, refurbish, 10% of repl.	ls	1	$7,875.00	30	25	$7,875
96	Bulkhead, replace	lf	350	$225.00	60	39	$78,750
97	Boat ramp	sf	510	$12.00	30	20	$6,120

DOCKS AND BULKHEADS - Replacement Costs - Subtotal $120,735

DOCKS AND BULKHEADS
COMMENTS

- "Bulkhead, replace" remaining life set to 39 years because software will only calculate and include funding for items under 40 years out. We will update and begin to count down the remaining life when the actual remaining life reaches 39 years.

- Pier replacement cost based on actual 2005 cost supplied by the Association.

GOLF COURSE
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
98	GC Regrading & Sand Traps	ls	1	$20,000.00	20	none	$20,000
99	GC Landscaping	ls	1	$10,000.00	20	1	$10,000
100	GC Putting Practice Green	ls	1	$1,000.00	15	none	$1,000
101	GC miscellaneous	ls	1	$5,000.00	1	none	$5,000
					GOLF COURSE - Replacement Costs - Subtotal		$36,000

GOLF COURSE
COMMENTS

- GC = Golf Course
- 05/24/11. Added GC miscellaneous. Includes an annual cost for the maintenance, seeding, fertilizing, and grass cutting of the golf course.
- 06/24/11. Deleted irrigation and miniature golf.

VALUATION EXCLUSIONS
EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	Site lighting fixtures	ls	1				EXCLUDED
	Property identification signage	ls	1				EXCLUDED
	Miscellaneous signage	ls	1				EXCLUDED
	Message board & clubhouse sign	ls	1				EXCLUDED
	Bench	ls	1				EXCLUDED
	BBQ	ls	1				EXCLUDED
	Fire extinguisher	ls	1				EXCLUDED
	Emergency lighting, exit light, etc.	ls	1				EXCLUDED
	Signage	ls	1				EXCLUDED
	Interior doors	ls	1				EXCLUDED
	Water heater	ls	1				EXCLUDED
	Pool access steps	ls	1				EXCLUDED
	Pool painting	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 ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	Miscellaneous culverts	ls	1				EXCLUDED
	Building foundation(s)	ls	1				EXCLUDED
	Concrete floor slabs (interior)	ls	1				EXCLUDED
	Wall, floor, & roof structure	ls	1				EXCLUDED
	Common element electrical services	ls	1				EXCLUDED
	Electrical wiring	ls	1				EXCLUDED
	Water piping at common facilities	ls	1				EXCLUDED
	Waste piping at common facilities	ls	1				EXCLUDED
	Gas services at common facilities	ls	1				EXCLUDED
	Stainless steel pool fixtures	ls	1				EXCLUDED

LONG-LIFE EXCLUSIONS
COMMENTS

- Long Life Exclusions. Components that when properly maintained, can be assumed to have a life equal to the property as a whole, are normally excluded from the Replacement Reserve Inventory. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.

- Exterior masonry is generally assumed to have an unlimited economic life but periodic repointing is required and we have included this for funding in the Replacement Reserve Inventory.

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

UNIT IMPROVEMENTS EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	Single family home, exterior & interior	ls	1				EXCLUDED
	Single family home, lot improvements	ls	1				EXCLUDED
	Single family home, utilities	ls	1				EXCLUDED
	Single family home, septic systems	ls	1				EXCLUDED

UNIT IMPROVEMENTS EXCLUSIONS

COMMENTS

- Unit improvement Exclusions. We understand that the elements of the project that relate to a single unit are the responsibility of that unit owner. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.

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

UTILITY EXCLUSIONS
EXCLUDED ITEMS

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

MAINTENANCE AND REPAIR EXCLUSIONS

COMMENTS

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

GOVERNMENT EXCLUSIONS
EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	Government, roadways	ls	1				EXCLUDED

GOVERNMENT EXCLUSIONS
COMMENTS

- Government Exclusions. We have assumed that some of the improvements installed on property owned by the Association will be maintained by the state, county, or local government, or other association or other responsible entity. Examples of items excluded from funding by Replacement Reserves by this standard are listed above.

- Excluded right-of-ways, including LIST ROADS, and adjacent properties.

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

PROJECTED ANNUAL REPLACEMENTS
GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 101 Projected Replacements in the Corrotoman by the Bay 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 1020 (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 commingle 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 1020H (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.
- UPDATING. In the first two or possibly three years after the completion of a Level One Replacement Reserve Study, we recommend the Association review and revise the Replacement Reserve Analysis and Inventory annually to take into account replacements which have occurred and known changes in replacement costs. This can frequently be handled as a Level Two or Level Three Study (as defined by the Community Associations Institute), unless the Association has completed major replacement projects. A full analysis (Level One) based on a comprehensive visual evaluation of the site should be accomplished every three to five years or after each major replacement project.
- 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 Corrotoman by the Bay 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

Item	2011	$
4	Gravel road, replenish (5%)	$2,141
93	Bulkhead, cap, finish repair	$1,080
98	GC Regrading & Sand Traps	$20,000
100	GC Putting Practice Green	$1,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$29,221

Item	2012	$
1	Asphalt pavement, patch (5%	$12,780
4	Gravel road, replenish (5%)	$2,141
82	Basketball pole & backstop	$1,200
88	Tot lot - Remove old equipm	$1,000
99	GC Landscaping	$10,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$32,121

Item	2013	$
4	Gravel road, replenish (5%)	$2,141
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$7,141

Item	2014	$
4	Gravel road, replenish (5%)	$2,141
47	Computer station, desktop	$1,200
48	Office equipment (allowance	$1,000
71	Swimming pool pump (3 hp)	$1,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$10,341

Item	2015	$
4	Gravel road, replenish (5%)	$2,141
31	Flooring, interior carpet	$5,950
41	Kitchen, range, GE	$550
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$13,641

Item	2016	$
3	Asphalt pavement, parking c	$16,170
4	Gravel road, replenish (5%)	$2,141
5	Concrete sidewalk (20%)	$1,955
18	CH - Entry door, metal, 1/2 g	$800
49	Love seats	$1,000
50	Upholstered chair, large	$350
74	Pool furniture, allowance	$1,000
79	Tennis court, net	$1,400
83	Tot lot - arch climber	$1,000
84	Tot lot - slide	$1,500
85	Tot lot - swing	$1,800
86	Tot lot - merry-go-round	$1,100
87	Tot lot - spring toy	$5,500
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$40,716

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PROJECTED REPLACEMENTS - YEARS 7 TO 12

Item	2017	$
4	Gravel road, replenish (5%)	$2,141
38	Kitchen, cabinets	$4,400
39	Kitchen, laminate countertop	$1,100
42	Kitchen, refrigerator, GE	$1,000
71	Swimming pool pump (3 hp)	$1,000
75	Perimeter fence - 4' (chain li	$6,480
76	Tennis court, color coat	$10,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$31,121

Item	2018	$
4	Gravel road, replenish (5%)	$2,141
52	Table lamp	$450
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$7,591

Item	2019	$
4	Gravel road, replenish (5%)	$2,141
12	Septic tank & field, clubhous	$8,000
26	SS - Garage door, fiberglass	$1,500
37	Ceiling fan	$1,000
43	Kitchen, refrigerator, Frigida	$650
46	Office furnishings, allowance	$1,000
47	Computer station, desktop	$1,200
48	Office equipment (allowance	$1,000
80	Tennis court, fence	$10,800
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$32,291

Item	2020	$
4	Gravel road, replenish (5%)	$2,141
10	Entry monument sign	$1,000
11	Sign & post, street	$2,500
40	Kitchen, range, Jenn-Air	$1,500
71	Swimming pool pump (3 hp)	$1,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$13,141

Item	2021	$
4	Gravel road, replenish (5%)	$2,141
17	CH - Entry door, solid wood,	$900
19	CH - Entry door, metal, 6-pa	$750
20	CH - Entry door, wood, 6-pa	$1,400
21	CH - Storm doors	$1,500
24	SS - Window, opening	$1,260
25	SS - Entry door, wood, 1/2 g	$325
28	P - Siding & trim, wood	$2,125
32	Flooring, vinyl sheet goods,	$1,000
56	Stack chair	$945
57	Folding chair	$1,350
58	Folding chair, upholstered	$1,925
59	Table, laminate top	$2,000
60	Misc. tables	$1,050
67	Swimming pool, concrete de	$11,440
79	Tennis court, net	$1,400
89	Picnic tables	$2,400
90	Pier decking	$6,850
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$45,761

Item	2022	$
4	Gravel road, replenish (5%)	$2,141
31	Flooring, interior carpet	$5,950
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$13,091

PROJECTED REPLACEMENTS - YEARS 13 TO 18

Item	2023	$
2	Asphalt pavement, road ove	$83,230
4	Gravel road, replenish (5%)	$2,141
30	GS - Shed replace	$2,750
36	Interior lighting, general	$1,020
71	Swimming pool pump (3 hp)	$1,000
74	Pool furniture, allowance	$1,000
77	Tennis court, resurface/over	$36,000
78	Tennis court, post & footings	$5,200
81	Basketball court, concrete, r	$3,480
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$140,821

Item	2024	$
4	Gravel road, replenish (5%)	$2,141
47	Computer station, desktop	$1,200
48	Office equipment (allowance	$1,000
62	HVAC, outdoor unit, 3 ton, c	$1,200
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$10,541

Item	2025	$
4	Gravel road, replenish (5%)	$2,141
41	Kitchen, range, GE	$550
51	End table	$675
55	Artwork	$1,250
72	Swimming pool filter	$1,800
76	Tennis court, color coat	$10,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$21,416

Item	2026	$
4	Gravel road, replenish (5%)	$2,141
33	Flooring, ceramic, men's roo	$2,000
35	Wall tile, ceramic, men's roo	$1,620
44	Restroom, renovate, men's	$6,250
45	Restroom, renovate, women	$6,000
49	Love seats	$1,000
50	Upholstered chair, large	$350
68	Swimming pool, concrete de	$11,440
71	Swimming pool pump (3 hp)	$1,000
79	Tennis court, net	$1,400
100	GC Putting Practice Green	$1,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$39,201

Item	2027	$
4	Gravel road, replenish (5%)	$2,141
8	Fence, 3-rail (vinyl) @ clubh	$6,670
9	Vinyl screen, 6' h x 12' w @	$1,656
15	CH - Siding & trim, vinyl	$8,269
23	SS - Siding & trim, vinyl	$3,938
42	Kitchen, refrigerator, GE	$1,000
61	HVAC, furnace/ air handler -	$6,000
63	Swimming pool, structure	$152,100
64	Swimming pool, coping	$11,000
65	Wading pool, structure	$11,830
66	Wading pool, coping	$3,000
94	Bulkhead, cap,	$2,100
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$214,703

Item	2028	$
4	Gravel road, replenish (5%)	$2,141
52	Table lamp	$450
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$7,591

PROJECTED REPLACEMENTS - YEARS 19 TO 24

Item	2029	$
4	Gravel road, replenish (5%)	$2,141
31	Flooring, interior carpet	$5,950
34	Flooring, ceramic, women's	$1,920
43	Kitchen, refrigerator, Frigida	$650
47	Computer station, desktop	$1,200
48	Office equipment (allowance	$1,000
53	Book shelf, 30" w x 72" h	$500
54	Book shelf, 30" w x 42" h	$600
71	Swimming pool pump (3 hp)	$1,000
73	Swimming pool filter	$1,800
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$21,761

Item	2030	$
1	Asphalt pavement, patch (5%	$12,780
4	Gravel road, replenish (5%)	$2,141
11	Sign & post, street	$2,500
40	Kitchen, range, Jenn-Air	$1,500
74	Pool furniture, allowance	$1,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$24,921

Item	2031	$
4	Gravel road, replenish (5%)	$2,141
46	Office furnishings, allowance	$1,000
69	Swimming pool, concrete de	$11,440
79	Tennis court, net	$1,400
83	Tot lot - arch climber	$1,000
84	Tot lot - slide	$1,500
85	Tot lot - swing	$1,800
86	Tot lot - merry-go-round	$1,100
87	Tot lot - spring toy	$5,500
97	Boat ramp	$6,120
98	GC Regrading & Sand Traps	$20,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$58,001

Item	2032	$
4	Gravel road, replenish (5%)	$2,141
71	Swimming pool pump (3 hp)	$1,000
82	Basketball pole & backstop	$1,200
99	GC Landscaping	$10,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$19,341

Item	2033	$
4	Gravel road, replenish (5%)	$2,141
76	Tennis court, color coat	$10,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$17,141

Item	2034	$
3	Asphalt pavement, parking c	$16,170
4	Gravel road, replenish (5%)	$2,141
37	Ceiling fan	$1,000
47	Computer station, desktop	$1,200
48	Office equipment (allowance	$1,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$26,511

PROJECTED REPLACEMENTS - YEARS 25 TO 30

Item	2035	$
4	Gravel road, replenish (5%)	$2,141
10	Entry monument sign	$1,000
13	CH - Shingle asphalt/fibergla	$6,820
14	CH - Gutter & downspout, 5'	$1,050
22	SS - Shingle asphalt/fibergla	$2,283
27	P - Shingle asphalt/fiberglas	$2,998
32	Flooring, vinyl sheet goods,	$1,000
41	Kitchen, range, GE	$550
56	Stack chair	$945
57	Folding chair	$1,350
58	Folding chair, upholstered	$1,925
59	Table, laminate top	$2,000
60	Misc. tables	$1,050
71	Swimming pool pump (3 hp)	$1,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$31,111

Item	2036	$
4	Gravel road, replenish (5%)	$2,141
6	Concrete sidewalk (20%)	$1,955
18	CH - Entry door, metal, 1/2 g	$800
21	CH - Storm doors	$1,500
31	Flooring, interior carpet	$5,950
49	Love seats	$1,000
50	Upholstered chair, large	$350
70	Swimming pool, concrete de	$11,440
79	Tennis court, net	$1,400
89	Picnic tables	$2,400
90	Pier decking	$6,850
91	Pier structure	$10,960
92	Piling, freestanding	$7,000
95	Bulkhead, refurbish, 10% of	$7,875
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$66,621

Item	2037	$
4	Gravel road, replenish (5%)	$2,141
16	CH - Window, opening	$7,770
42	Kitchen, refrigerator, GE	$1,000
74	Pool furniture, allowance	$1,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$16,911

Item	2038	$
4	Gravel road, replenish (5%)	$2,141
38	Kitchen, cabinets	$4,400
39	Kitchen, laminate countertop	$1,100
52	Table lamp	$450
71	Swimming pool pump (3 hp)	$1,000
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$14,091

Item	2039	$
4	Gravel road, replenish (5%)	$2,141
26	SS - Garage door, fiberglass	$1,500
43	Kitchen, refrigerator, Frigida	$650
47	Computer station, desktop	$1,200
48	Office equipment (allowance	$1,000
62	HVAC, outdoor unit, 3 ton, c	$1,200
80	Tennis court, fence	$10,800
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$23,491

Item	2040	$
4	Gravel road, replenish (5%)	$2,141
11	Sign & post, street	$2,500
40	Kitchen, range, Jenn-Air	$1,500
101	GC miscellaneous	$5,000
	Total Scheduled Replacements	$11,141

CONDITION ASSESSMENT

General Comments. Miller - Dodson Associates conducted a Reserve Study at Corrotoman by the Bay in March 2011. Corrotoman by the Bay is in average condition for a community constructed in 1967. 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.

SITE IMPROVEMENTS

Asphalt Pavement. The Association is responsible for the secondary asphalt and gravel roads within the community, with the exception of Marina Drive. The main roads, Corrotoman Dr. and Bayview Dr. are maintained by the State of Virginia. In general, the Associations asphalt pavement is in fair to good condition. The defects include potholes and cracks along the edges caused by insufficient shoulder support, poor drainage or frost action. We have included funding for patching the existing defects to extend the economic life of the pavement and delay the next required overlay. The roads have far exceeded their normal projected life span and with patching should be serviceable for another 10 to 12 years. The Association had mentioned maintaining the roads with a tar and chip coating in the near term, but with the cost of tar and chip and overlay being so close, we believe it would not make economic sense. Tar and chip would cost approximately $1.10/sf and last about nine years, while an asphalt overlay would cost approximately $1.40/sf and last about 18-20 years or more. In addition, the tar and chip will not provide any structural enhancement to the existing pavement, and any existing alligatoring or cracking defects will continue to deteriorate the pavement over time. The Association maintains an inventory of approximately 71,000 square feet of asphalt pavement along the following roads and at the clubhouse:

• E. Highview Dr.	18,600 SF
• Landsend East	5,550 SF
• Corrotoman Extension	16,800 SF
• Cove Ln.	9,000 SF
• Dock St. at pier	9,500 SF
• Clubhouse drive and parking	11,550 SF

As a rule of thumb, asphalt should be overlaid when approximately five percent 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 insure the longest life of the asphalt, we recommend a systematic and comprehensive maintenance program that includes:

1. 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 if deterioration has penetrated the asphalt, patched. This is a maintenance activity, and we have assumed that it will not be funded from Reserves.

2. 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.

3. Seal Coating. The asphalt should be seal coated every three to five 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 to, so to speak, '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, since paved roadways, parking areas, and paths constitute a significant portion of the community's Reserve Funding, the following resource links may provide insight into the general terms and concerns, including maintenance related pro's and con's, which may help the Association better manage the asphalt pavements throughout the community: http://www.mnltap.umn.edu/pdf/asphalt.pdf and http://www.pavementpro.org/.

Photo 1 - Corrotoman Extension asphalt pavement in good condition

Photo 2 - Example of pothole on Corrotoman extension

Photo 3 - Edge cracking and loss of asphalt pavement on E. Highview - requires cutting existing asphalt parallel to edge and patching

Photo 4 - Landsend East at intersection with Corrotoman Dr. is deteriorating and requires patching

Photo 5 - Asphalt pavement at drive to clubhouse with edge cracking - vegetation in pavement will shorten life

Photo 6 - Clubhouse asphalt parking area requires edge patching and vegetation removal

Gravel Roads. The Association maintains the 142,685 square feet of gravel secondary roads within the community. We have included funds for replenishing the gravel road on an as-needed basis. The roads are in varying condition from fair to good with depressions, erosion and loss of gravel at the edges of the roads being the main defects.

• Pine Pl.	8,250 SF
• Ridge Rd.	10,450 SF
• Sutherland St.	6,600 SF
• Evergreen Dr.	12,100 SF
• Dock St.	6,800 SF
• Wishing Well Ln.	13,200 SF
• Sandy Ln.	6,650 SF
• Meadowview Dr.	22,000 SF
• W. Highview Dr.	8,525 SF
• Tiny Pl.	2,750 SF
• Landsend West	7,150 SF
• Landsend East	3,960 SF
• Senior Creek Pl.	9,350 SF
• Club View	7,700 SF
• Middle Rd.	6,200 SF
• Forest Ln.	11,000 SF

Photo 7 - Club View Dr. in good condition

Photo 8 - Sandy Ln. with ruts and potholes

Photo 9 - Meadowview Ln. with erosion along edge

Photo 10 - Middle Rd. with loss of gravel along edges and vegetation encroachment

Concrete Flatwork. The concrete flatwork includes the community sidewalks and patio at the clubhouse. The Association maintains an inventory of approximately 1,114 square feet of concrete flatwork. The overall condition of the concrete flatwork is fair to good with cracking as the main defect. Cracks larger than about 3/16" wide should be filled with an elastomeric sealant to prevent water penetration and further damage during freeze/thaw cycles.

The standards we used for recommending replacement are as follows:

1. Trip hazard, 0.5 inch height difference.
2. Severe cracking.
3. Severe spalling
4. Uneven riser heights on steps.
5. Steps with risers in excess of 8.25 inches.

Because it is highly unlikely that all of the community's concrete components will fail and require replacement in the period of the study, we have programmed funds for the replacement of 60% of the inventory and spread those funds over a 60-year timeframe to reflect the incremental nature of this work. This approach assumes a failure rate of 1% per year.

Photo 11 - Front sidewalk at clubhouse

Photo 12 - Side and rear sidewalk at clubhouse

Entrance Feature. The Association maintains the entrance sign and message board on Corrotoman Dr. The entrance sign is painted wood, 48" in diameter, and is in good condition. The message board sign is painted wood in fair condition with broken plastic letter rails on the sign portion being the main defect. Because of a replacement cost under $1,000, we have excluded the message board sign from the study.

Photo 13 - Entrance feature with wood sign


Photo 14 - Message board sign

Vinyl Rail Fencing. The Association maintains an inventory of approximately 290 linear feet of two rail vinyl fencing. The fencing is located on either side of the clubhouse drive entrance and also along the front of the clubhouse itself. The overall condition of the fencing is good with only one rail needing to be re-set.


Photo 15 - Vinyl fencing


Photo 16 - Vinyl fences expand and contract causing rails to come loose

Clubhouse Septic System. The Association is responsible for the operation of the septic system serving the clubhouse. The overall condition of the system is reported to be good having been recently serviced. Records show the septic system was installed in 1977. Listed below are the major elements of the septic system for which the Association is responsible.

- Septic Tank. There is one (1) 42" septic tank located on the East side of the clubhouse. It was reported that the tank is in good condition.

- Drainage Field. There is a drainage field connected to the septic tanks and located east of the tank. The septic field appears to be in good operating condition.

CLUBHOUSE EXTERIOR

Asphalt Shingle Roofing. The asphalt shingle roof on the clubhouse is in good condition and reported to be five (5) years old. We have estimated the remaining useful life of the roof based on the conditions seen at the site as well as the age of the roof. We have assumed that when the roof is eventually replaced, it will be replaced with a 30 year roof. We have assumed that the gutters and downspouts will be replaced when the roof is replaced.

Photo 17 - Clubhouse front roof view

Photo 18 - Clubhouse rear roof view

Vinyl Siding. The vinyl siding on the clubhouse is in good overall condition. We have estimated the remaining useful life of the siding based on the conditions seen at the site as well as the age of the siding.

Photo 19 - Typical vinyl siding - dark spots are dirt stains that can be cleaned

Photo 20 - One area of cracked siding was observed - located near men's room door

Windows. The clubhouse windows are the responsibility of the Association. The existing windows are vinyl and are in good condition with no defects noted. The average service life for windows of this type is 35 years.

Photo 21 - Typical vinyl window

Exterior Doors. The exterior doors are either of wood or metal construction. The front door, as well as the side restroom doors, is of wood construction. These doors are in good condition. The side kitchen door and the rear exit door are of metal construction. The kitchen door is in good condition while the rear exit door glazing frame is weathered and cracked.

Metal doors and their frames are prone to damage from corrosion. To limit damage, doors and frames should be painted every five to six years.

Photo 22 - Rear door glazing frame is cracked

CLUBHOUSE INTERIOR

Interior components included are the following: flooring (carpet, ceramic and sheet vinyl), furniture, kitchen cabinets and appliances, restroom fixtures and finishes, office equipment and HVAC. All of the items are in good condition and are expected to reach their full economic lives.

Photo 23 - View of clubhouse interior

Photo 24 - View of clubhouse interior

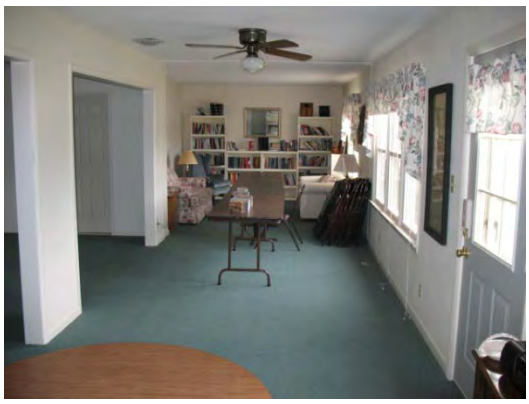

Photo 25 - View of clubhouse interior

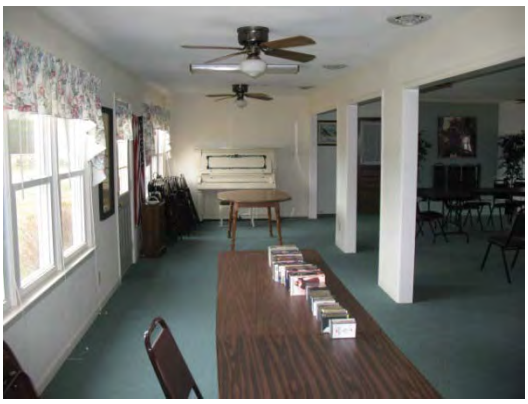

Photo 26 - View of clubhouse interior

Photo 27 - View of office

Photo 28 - View of kitchen from meeting room

Photo 29 - Kitchen sink and cabinets

Photo 30 - Kitchen refrigerators

Photo 31 - Kitchen ranges and cabinets

Photo 32 - Men's room

Photo 33 - Women's room was recently renovated

Photo 34 - Women's room

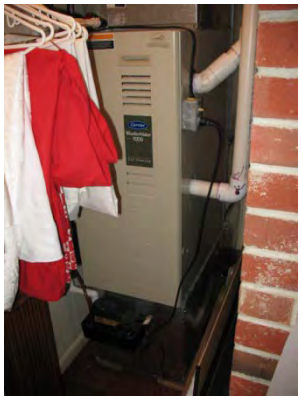

Photo 35 - Clubhouse gas furnace

Photo 36 - Clubhouse outdoor unit for cooling

ACCESSORY BUILDINGS

Photo 37 - Storage shed roof and siding in good condition - eave trim cover damaged

Photo 38 - Large crack should be repaired to remove trip hazard

Photo 39 - Picnic shelter is in good condition

Photo 40 - Garden shed is in fair condition and needs to be reset on foundation blocks

RECREATIONAL FACILITIES

Swimming Pool. The community operates an outdoor pool and wading pool of concrete construction with a concrete deck. The concrete deck is not coated. Listed below are the major components of the pool facilities:

- Pool Shell. The shell for the swimming pool appears to be in overall good condition with no significant cracks observed. Pool shells normally have a finite life of approximately 60 years. At that time it may not be necessary to replace the entire structure. However, it is prudent to anticipate a major expenditure for replacement of underground lines and sections of the pool. Based on our research, we have found it to be prudent to program $65 per square foot of pool surface to cover these needs.

- Pool Deck. The pool has a concrete deck. The overall condition of the deck is fair with several linear cracks being the main defect. The Association has done a good job of filling cracks and by doing this will extend the economic life of the deck. Because it is highly unlikely that all of the community's concrete pool deck sections will fail and require replacement at the same time, we have divided the deck into four (4) equal components in the Reserve Analysis and have spread their replacement over a fifteen (15) year period.

- Pool Paint. The pool shell is painted on an annual basis and is currently in good condition.

- Coping. The pool is edged with masonry coping. The coping is in overall good condition with several hairline cracks noted.

- Pump and Filter System. The filter system is reported to be in good operating condition. We have assumed a service life of 20 years for the filter system, and 10 years for the pump.

- Pool fencing. The swimming pool and wading pool are surrounded by a 48" high chain link fence. National pool codes specify a minimum fence height of 48", but local codes may have stricter requirements. The Association should verify that their 48" high fence meets the local code. The fence is in fair condition with rust on the chain link portion being the main defect. The Association has been painting the piping on an as-needed basis.

Photo 41 - Overall pool view

Photo 42 - Pool shell is painted annually

Photo 43 - Overall view of pool

Photo 44 - Pool access steps

Photo 45 - Pool concrete deck

Photo 46 - Pool concrete deck

Photo 47 - Pool coping has been recently caulked

Photo 48 - Pool fence

Photo 49 - Concrete steps down to pump room

Photo 50 - Pool pump building has concrete block walls and concrete roof - roof should be periodically sealed against moisture

Photo 51 - Pool pump

Photo 52 - Pool sand filters

Tennis Courts. The community maintains two tennis courts. The overall condition of these courts is fair with several cracks in the playing surface. Listed below are the major components of the tennis court facilities:

- Asphalt Pavement. The asphalt pavement for the tennis court is in fair condition with cracks and splits that extend into the playing surface. The Association has been repairing cracks as they occur, but several have opened again. We have assumed a service life of 20 years for the asphalt.
- Color Coat. The color coat on the tennis courts is in good condition with no major defects in its finish other than at the cracks. The current color coat was applied in 2009.

- Fencing. The fencing installed around the tennis courts is chain link and in fair condition. The fencing and poles have numerous areas of rust that will continue to weaken the fencing and posts. The fence could be painted, but the expense and difficulty stopping the rust would probably not be worth the investment. We have assumed that the fencing will be replaced when the asphalt pavement is replaced.

- Net Posts. The net posts are in good condition. We have assumed that the new posts will be replaced when the asphalt pavement is replaced.

Photo 53 - Overall view of tennis courts

Photo 54 - Tennis court posts and nets in good condition

Photo 55 - Repaired crack that has re-opened

Photo 56 - Tennis court fencing has numerous areas of rust

Play Equipment. The community maintains several play structures and spring toys. The structures are older and in need of painting, but remain in good overall condition. The only major defect noted was at the swing set where the top attachment S-hooks are open and, although not likely, could come out of their bracket.

Photo 57 - Swing set

With the exception of the spring toys having mulch surfacing, the other play structures do not have any protective surfacing beneath them. The grass beneath the arch play structure, the slide, the swing set and the merry-go-round is not an acceptable protective surface because weathering and wear can compact the surface. The Association should incorporate recommendations from the "Handbook for Public Playground Safety" listed below to create a safer play area. The safety of each individual piece of playground equipment as well as the layout of the entire play area should be considered when evaluating a playground for safety. The

installation and maintenance of protective surfacing under and around all equipment is crucial. Information for playground design and safety can be found in the "Handbook for Public Playground Safety", U.S. Consumer Product Safety Commission, Washington, DC 20207. (Pub. No. 325). The publication can be downloaded at www.cpsc.gov.

Our estimates for playground equipment are based on comparing photos of the existing equipment with equipment of a similar size in manufacturer's catalogs. We use the pricing that is quoted by the manufacturer and add 30% for the disposal of the old equipment and the labor to install the new equipment.

Photo 58 - Slide

Photo 59 - Arch climber

Photo 60 - Merry-go-round

Photo 61 - Spring toy

Wood Piers. The Association operates a wood pier at the end of Dock St. The pier is constructed from pressure treated lumber and rest on wood pilings. The pier was totally reconstructed in 2005 and remains in good condition. There are seven (7) freestanding piles on each side of the pier for a total of fourteen (14).

- Wood Pier Decking. The wood decking on the pier and the finger piers is exposed to harsh extremes of sun and weather. It will typically require replacement before the heavier members of the underlying structure. This decking will also be removed and replaced in its entirety when the underlying structure is replaced. To model this replacement pattern, we have provided for complete replacement incident to the replacement of the structure, and we have included an additional replacement interval for the wood pier decking at the midpoint of the service life of the underlying structure.

  The wood pier decking is in good condition.

- Pier Structure. The structure consists of pressure treated wood piles with stringers spanning the distance between piles. We have assumed that when the pier structure will require replacement, all piling also will be replaced.

The pier structure is in good condition.

- Freestanding Piling. Freestanding pilings are those pilings that are installed at the outside limit of each slip. These pilings provide mooring points to secure the stern of the boat within the slip. They are not a part of the pier structure. Because these pilings can be replaced individually when required without affecting other elements of the pier structure, we have treated them separately in the analysis and spread the cost of their replacement over time.

  The freestanding pilings are in good condition.

It is recommended that all piers be inspected at least once each year to identify damage to pilings, structural members, surface boards, and railings.

Photo 62 - View of pier and pilings

Photo 63 - View of pier and pilings

Photo 64 - Pier decking view

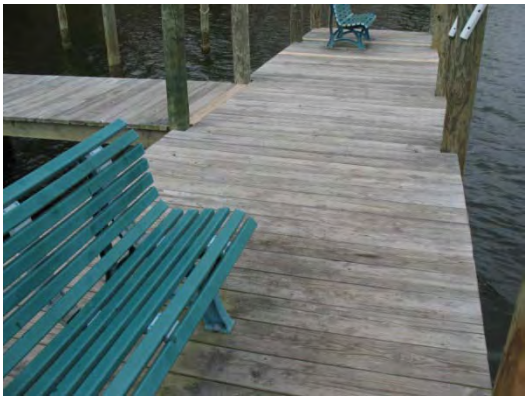

Photo 65 - Pier decking view

Bulkhead. There is a wood framed bulkhead with synthetic sheet piling extending along a portion of the waterfront at the pier location. The bulkhead and piling are in overall good condition. The only defects observed were rotting of the bottom frame member in several locations and checking of the wood top cap. The Association is in the process of installing a new top cap over the old and is about half way done with the repair. The rotting bottom frame members can be replaced on an as-needed basis. We have included funding in the Reserve Analysis for the periodic replacement of portions of this bulkhead.

Photo 66 - View of bulkhead from pier

Photo 67 - View of bulkhead near boat ramp

Photo 68 - Bottom frame timber is rotting

Photo 69 - Bottom frame timber is rotting

Photo 70 - Erosion is occurring behind the bulkhead near the parking area

Photo 71 - Concrete boat ramp in good condition - Association plans to widen small area denoted by arrow

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

CASH FLOW METHOD ACCOUNTING SUMMARY

This Corrotoman by the Bay - Cash Flow Method Accounting Summary is an attachment to the Corrotoman by the Bay - Replacement Reserve Study dated Revised June 24, 2011 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2011, 2012, and 2013 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- CASH FLOW METHOD CATEGORY FUNDING REPORT, 2011, 2012, and 2013. Each of the 101 Projected Replacements listed in the Corrotoman by the Bay Replacement Reserve Inventory has been assigned to one of 8 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 $0 Beginning Balance (at the start of the Study Year) and the $149,786 of additional Replacement Reserve Funding in 2011 through 2013 (as calculated in the Replacement Reserve Analysis) to each of the 101 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 schedule in years 2011 through 2013.
  - Allocation of the $0 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the $149,786 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2011 through 2013, 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 $0 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 Corrotoman by the Bay the Beginning Balance funds NO Scheduled Replacements in the Study Year.
  - The next step is the allocation of the $65,582 of 2011 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 Corrotoman by the Bay the Beginning Balance and the 2011 Replacement Reserve Funding, funds replacements through 2012 and partial funds (59.4%) replacements in 2013.
  - Allocations of the 2012 and 2013 Reserve Funding are done using the same methodology.
  - The Three-Year Replacement Funding Report details component by component allocations made by Chronological Allocation.

2011 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 101 Projected Replacements included in the Corrotoman by the Bay Replacement Reserve Inventory has been assigned to one of the 8 categories listed in TABLE CF-1 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 $0 as of the first day of the Study Year, March 1, 2010.
- Total reserve funding (including the Beginning Balance) of $65,582 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 2011 being accomplished in 2011 at a cost of $29,221.

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.

2011 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF-1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2011 BEGINNING BALANCE	2011 RESERVE FUNDING	2011 PROJECTED REPLACEMENTS	2011 END OF YEAR BALANCE
SITE COMPONENT	1 to 60 years	0 to 45 years	$140,012		$18,332	($2,141)	$16,192
BUILDING EXTERIOR	15 to 60 years	5 to 39 years	$53,886				
CLUBHOUSE BUILDING INTERIOR	5 to 21 years	3 to 18 years	$39,160				
BUILDING INTERIOR (cont.)	10 to 24 years	5 to 18 years	$19,295				
SWIMMING POOL	3 to 60 years	3 to 25 years	$235,770				
COURTS & RECREATION EQUIPMENT	5 to 50 years	1 to 12 years	$82,380		$2,200		$2,200
DOCKS AND BULKHEADS	15 to 100 years	0 to 39 years	$120,735		$1,080	($1,080)	
GOLF COURSE	1 to 20 years	0 to 1 years	$36,000		$43,970	($26,000)	$17,970

2012 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 101 Projected Replacements included in the Corrotoman by the Bay Replacement Reserve Inventory has been assigned to one of the 8 categories listed in TABLE CF-2 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 $36,362 on March 1, 2011.
- Total reserve funding (including the Beginning Balance) of $107,684 in 2011 through 2012.
- 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 2012 being accomplished in 2012 at a cost of $32,121.

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.

2012 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF-2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2012 BEGINNING BALANCE	2012 RESERVE FUNDING	2012 PROJECTED REPLACEMENTS	2012 END OF YEAR BALANCE
SITE COMPONENT	1 to 60 years	0 to 44 years	$140,012	$16,192	$12,726	($14,921)	$13,998
BUILDING EXTERIOR	15 to 60 years	4 to 38 years	$53,886		$299		$299
CLUBHOUSE BUILDING INTERIOR	5 to 21 years	2 to 17 years	$39,160		$8,700		$8,700
BUILDING INTERIOR (cont.)	10 to 24 years	4 to 17 years	$19,295		$505		$505
SWIMMING POOL	3 to 60 years	2 to 24 years	$235,770		$1,374		$1,374
COURTS & RECREATION EQUIPMENT	5 to 50 years	0 to 11 years	$82,380	$2,200	$4,598	($2,200)	$4,598
DOCKS AND BULKHEADS	15 to 100 years	9 to 99 years	$120,735				
GOLF COURSE	1 to 20 years	0 to 19 years	$36,000	$17,970	$13,899	($15,000)	$16,869

2013 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 101 Projected Replacements included in the Corrotoman by the Bay Replacement Reserve Inventory has been assigned to one of the 8 categories listed in TABLE CF-3 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 $46,343 on March 1, 2012.
- Total Replacement Reserve funding (including the Beginning Balance) of $149,786 in 2011 to 2013.
- 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 2013 being accomplished in 2013 at a cost of $7,141.

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.

2013 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF-3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2013 BEGINNING BALANCE	2013 RESERVE FUNDING	2013 PROJECTED REPLACEMENTS	2013 END OF YEAR BALANCE
SITE COMPONENT	1 to 60 years	0 to 43 years	$140,012	$13,998	$13,831	($2,141)	$25,689
BUILDING EXTERIOR	15 to 60 years	3 to 37 years	$53,886	$299	$501		$800
CLUBHOUSE BUILDING INTERIOR	5 to 21 years	1 to 16 years	$39,160	$8,700	$3,469		$12,169
BUILDING INTERIOR (cont.)	10 to 24 years	3 to 16 years	$19,295	$505	$845		$1,350
SWIMMING POOL	3 to 60 years	1 to 23 years	$235,770	$1,374	$4,618		$5,992
COURTS & RECREATION EQUIPMENT	5 to 50 years	3 to 49 years	$82,380	$4,598	$13,038		$17,637
DOCKS AND BULKHEADS	15 to 100 years	8 to 98 years	$120,735				
GOLF COURSE	1 to 20 years	0 to 19 years	$36,000	$16,869	$5,799	($5,000)	$17,668

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE 4 below details the allocation of the $0 Beginning Balance, as reported by the Association and the $149,786 of Replacement Reserve Funding calculated by the Cash Flow Method in 2011 to 2013, to the 101 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 CF-1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $0 on March 1, 2010.
- Replacement Reserves on Deposit totaling $36,362 on March 1, 2011.
- Replacement Reserves on Deposit totaling $46,343 on March 1, 2012.
- Total Replacement Reserve funding (including the Beginning Balance) of $149,786 in 2011 to 2013.
- 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 2011 to 2013 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $68,482.

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 CF-4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2011 Reserve Funding	2011 Projected Replacements	2011 End of Year Balance	2012 Reserve Funding	2012 Projected Replacements	2012 End of Year Balance	2013 Reserve Funding	2013 Projected Replacements	2013 End of Year Balance
	SITE COMPONENT											
1	Asphalt pavement, patch (5%)	12,780		12,780		12,780		(12,780)				
2	Asphalt pavement, road overlay	83,230										
3	Asphalt pavement, parking overlay	16,170					6,045		6,045	10,125		16,170
4	Gravel road, replenish (5%)	2,141		5,552	(2,141)	3,412	5,950	(2,141)	7,222	2,483	(2,141)	7,564
5	Concrete sidewalk (20%)	1,955					731		731	1,224		1,955
6	Concrete sidewalk (20%)	1,955										
7	Concrete sidewalk (20%)	1,955										
8	Fence, 3-rail (vinyl) @ clubhouse	6,670										
9	Vinyl screen, 6' h x 12' w @ clubhouse	1,656										
10	Entry monument sign	1,000										
11	Sign & post, street	2,500										
12	Septic tank & field, clubhouse	8,000										
	BUILDING EXTERIOR											
13	CH - Shingle asphalt/fiberglass	6,820										
14	CH - Gutter & downspout, 5" aluminu	1,050										
15	CH - Siding & trim, vinyl	8,269										
16	CH - Window, opening	7,770										
17	CH - Entry door, solid wood, fan lite	900										
18	CH - Entry door, metal, 1/2 glass	800					299		299	501		800
19	CH - Entry door, metal, 6-panel	750										
20	CH - Entry door, wood, 6-panel	1,400										
21	CH - Storm doors	1,500										
22	SS - Shingle asphalt/fiberglass	2,283										
23	SS - Siding & trim, vinyl	3,938										
24	SS - Window, opening	1,260										
25	SS - Entry door, wood, 1/2 glass	325										
26	SS - Garage door, fiberglass, 7x12	1,500										
27	P - Shingle asphalt/fiberglass	2,998										
28	P - Siding & trim, wood	2,125										
29	P - Concrete slab	7,450										
30	GS - Shed replace	2,750										
	CLUBHOUSE BUILDING INTERIOI											
31	Flooring, interior carpet	5,950					5,950		5,950			5,950
32	Flooring, vinyl sheet goods, kitchen	1,000										
33	Flooring, ceramic, men's room	2,000										
34	Flooring, ceramic, women's room	1,920										
35	Wall tile, ceramic, men's room	1,620										
36	Interior lighting, general	1,020										
37	Ceiling fan	1,000										
38	Kitchen, cabinets	4,400								2,348		2,348
39	Kitchen, laminate countertop	1,100								587		587

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE 4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2011 Reserve Funding	2011 Projected Replacements	2011 End of Year Balance	2012 Reserve Funding	2012 Projected Replacements	2012 End of Year Balance	2013 Reserve Funding	2013 Projected Replacements	2013 End of Year Balance
40	Kitchen, range, Jenn-Air	1,500										
41	Kitchen, range, GE	550					550		550			550
42	Kitchen, refrigerator, GE	1,000								534		534
43	Kitchen, refrigerator, Frigidaire	650										
44	Restroom, renovate, men's	6,250										
45	Restroom, renovate, women's	6,000										
46	Office furnishings, allowance	1,000										
47	Computer station, desktop	1,200					1,200		1,200			1,200
48	Office equipment (allowance)	1,000					1,000		1,000			1,000
	BUILDING INTERIOR (cont.)											
49	Love seats	1,000					374		374	626		1,000
50	Upholstered chair, large	350					131		131	219		350
51	End table	675										
52	Table lamp	450										
53	Book shelf, 30" w x 72" h	500										
54	Book shelf, 30" w x 42" h	600										
55	Artwork	1,250										
56	Stack chair	945										
57	Folding chair	1,350										
58	Folding chair, upholstered	1,925										
59	Table, laminate top	2,000										
60	Misc. tables	1,050										
61	HVAC, furnace/ air handler - gas fired	6,000										
62	HVAC, outdoor unit, 3 ton, compresso	1,200										
	SWIMMING POOL											
63	Swimming pool, structure	152,100										
64	Swimming pool, coping	11,000										
65	Wading pool, structure	11,830										
66	Wading pool, coping	3,000										
67	Swimming pool, concrete deck, 25%	11,440										
68	Swimming pool, concrete deck, 25%	11,440										
69	Swimming pool, concrete deck, 25%	11,440										
70	Swimming pool, concrete deck, 25%	11,440										
71	Swimming pool pump (3 hp)	1,000					1,000		1,000	534		1,534
72	Swimming pool filter	1,800										
73	Swimming pool filter	1,800										
74	Pool furniture, allowance	1,000					374		374	626		1,000
75	Perimeter fence - 4' (chain link)	6,480								3,458		3,458
	COURTS & RECREATION EQUIPM											
76	Tennis court, color coat	10,000								5,337		5,337
77	Tennis court, resurface/overlay	36,000										
78	Tennis court, post & footings	5,200										
79	Tennis court, net	1,400					523		523	877		1,400
80	Tennis court, fence	10,800										
81	Basketball court, concrete, replace	3,480										
82	Basketball pole & backstop	1,200		1,200		1,200		(1,200)				
83	Tot lot - arch climber	1,000					374		374	626		1,000
84	Tot lot - slide	1,500					561		561	939		1,500
85	Tot lot - swing	1,800					673		673	1,127		1,800
86	Tot lot - merry-go-round	1,100					411		411	689		1,100
87	Tot lot - spring toy	5,500					2,056		2,056	3,444		5,500
88	Tot lot - Remove old equipment	1,000		1,000		1,000		(1,000)				
89	Picnic tables	2,400										
	DOCKS AND BULKHEADS											
90	Pier decking	6,850										
91	Pier structure	10,960										
92	Piling, freestanding	7,000										
93	Bulkhead, cap, finish repair	1,080		1,080	(1,080)							
94	Bulkhead, cap,	2,100										
95	Bulkhead, refurbish, 10% of repl.	7,875										
96	Bulkhead, replace	78,750										
97	Boat ramp	6,120										
	GOLF COURSE											
98	GC Regrading & Sand Traps	20,000		20,000	(20,000)							
99	GC Landscaping	10,000		10,000		10,000		(10,000)				
100	GC Putting Practice Green	1,000		1,000	(1,000)							

COMPONENT METHOD ACCOUNTING SUMMARY

This Corrotoman by the Bay - Component Method Accounting Summary is an attachment to the Corrotoman by the Bay - Replacement Reserve Study dated Revised June 24, 2011 and is for use by accounting and reserve professionals experienced in Association funding and accounting principals. This Summary consists of four reports, the 2011, 2012, and 2013 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2011, 2012, and 2013. Each of the 101 Projected Replacements listed in the Corrotoman by the Bay Replacement Reserve Inventory has been assigned to one of 8 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 $0 Beginning Balance (at the start of the Study Year) and the $214,125 of additional Replacement Reserve funding in 2011 through 2013 (as calculated in the Replacement Reserve Analysis) to each of the 101 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 2011 through 2013.
  - Allocation of the $0 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the $214,125 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2011 through 2013, by the Component Method.

2011 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 101 Projected Replacements included in the Corrotoman by the Bay Replacement Reserve Inventory has been assigned to one of the 8 categories listed in TABLE CM-1 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 $0 as of the first day of the Study Year, March 1, 2010.
- Total reserve funding (including the Beginning Balance) of $89,110 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 2011 being accomplished in 2011 at a cost of $29,221.

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.

2011 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM-1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2011 BEGINNING BALANCE	2011 RESERVE FUNDING	2011 PROJECTED REPLACEMENTS	2011 END OF YEAR BALANCE
SITE COMPONENT	1 to 60 years	0 to 45 years	$140,012		$19,800	$2,141	$17,659
BUILDING EXTERIOR	15 to 60 years	5 to 39 years	$53,886		$2,980		$2,980
CLUBHOUSE BUILDING INTERIOR	5 to 21 years	3 to 18 years	$39,160		$4,485		$4,485
BUILDING INTERIOR (cont.)	10 to 24 years	5 to 18 years	$19,295		$1,567		$1,567
SWIMMING POOL	3 to 60 years	3 to 25 years	$235,770		$14,763		$14,763
COURTS & RECREATION EQUIPMENT	5 to 50 years	1 to 12 years	$82,380		$9,434		$9,434
DOCKS AND BULKHEADS	15 to 100 years	0 to 39 years	$120,735		$5,080	$1,080	$4,000
GOLF COURSE	1 to 20 years	0 to 1 years	$36,000		$31,000	$26,000	$5,000

2012 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 101 Projected Replacements included in the Corrotoman by the Bay Replacement Reserve Inventory has been assigned to one of the 8 categories listed in TABLE CM-2 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 $59,889 on March 1, 2011.
- Total reserve funding (including the Beginning Balance) of $157,217 in 2011 through 2012.
- 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 2012 being accomplished in 2012 at a cost of $32,121.

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.

2012 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM-2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2012 BEGINNING BALANCE	2012 RESERVE FUNDING	2012 PROJECTED REPLACEMENTS	2012 END OF YEAR BALANCE
SITE COMPONENT	1 to 60 years	0 to 44 years	$140,012	$17,659	$19,800	$14,921	$22,539
BUILDING EXTERIOR	15 to 60 years	4 to 38 years	$53,886	$2,980	$2,980		$5,961
CLUBHOUSE BUILDING INTERIOR	5 to 21 years	2 to 17 years	$39,160	$4,485	$4,485		$8,971
BUILDING INTERIOR (cont.)	10 to 24 years	4 to 17 years	$19,295	$1,567	$1,567		$3,134
SWIMMING POOL	3 to 60 years	2 to 24 years	$235,770	$14,763	$14,763		$29,527
COURTS & RECREATION EQUIPMENT	5 to 50 years	0 to 11 years	$82,380	$9,434	$9,434	$2,200	$16,667
DOCKS AND BULKHEADS	15 to 100 years	9 to 99 years	$120,735	$4,000	$4,011		$8,011
GOLF COURSE	1 to 20 years	0 to 19 years	$36,000	$5,000	$11,067	$15,000	$1,067

2013 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 101 Projected Replacements included in the Corrotoman by the Bay Replacement Reserve Inventory has been assigned to one of the 8 categories listed in TABLE CM-3 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 $95,876 on March 1, 2012.
- Total Replacement Reserve funding (including the Beginning Balance) of $214,125 in 2011 to 2013.
- 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 2013 being accomplished in 2013 at a cost of $7,141.

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.

2013 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM-3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2013 BEGINNING BALANCE	2013 RESERVE FUNDING	2013 PROJECTED REPLACEMENTS	2013 END OF YEAR BALANCE
SITE COMPONENT	1 to 60 years	0 to 43 years	$140,012	$22,539	$14,120	$2,141	$34,518
BUILDING EXTERIOR	15 to 60 years	3 to 37 years	$53,886	$5,961	$2,980		$8,941
CLUBHOUSE BUILDING INTERIOR	5 to 21 years	1 to 16 years	$39,160	$8,971	$4,485		$13,456
BUILDING INTERIOR (cont.)	10 to 24 years	3 to 16 years	$19,295	$3,134	$1,567		$4,701
SWIMMING POOL	3 to 60 years	1 to 23 years	$235,770	$29,527	$14,763		$44,290
COURTS & RECREATION EQUIPMENT	5 to 50 years	3 to 49 years	$82,380	$16,667	$8,414		$25,081
DOCKS AND BULKHEADS	15 to 100 years	8 to 98 years	$120,735	$8,011	$4,011		$12,022
GOLF COURSE	1 to 20 years	0 to 19 years	$36,000	$1,067	$6,567	$5,000	$2,633

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM-4 below details the allocation of the $0 Beginning Balance, as reported by the Association and the $214,125 of Replacement Reserve Funding calculated by the Cash Flow Method in 2011 to 2013, to the 101 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 CF-1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $0 on March 1, 2010.
- Replacement Reserves on Deposit totaling $59,889 on March 1, 2011.
- Replacement Reserves on Deposit totaling $95,876 on March 1, 2012.
- Total Replacement Reserve funding (including the Beginning Balance) of $214,125 in 2011 to 2013.
- 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 2011 to 2013 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $68,482.

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 CM-4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2011 Reserve Funding	2011 Projected Replacements	2011 End of Year Balance	2012 Reserve Funding	2012 Projected Replacements	2012 End of Year Balance	2013 Reserve Funding	2013 Projected Replacements	2013 End of Year Balance
	SITE COMPONENT											
1	Asphalt pavement, patch (5%)	12,780		6,390		6,390	6,390	(12,780)		710		710
2	Asphalt pavement, road overlay	83,230		6,402		6,402	6,402		12,805	6,402		19,207
3	Asphalt pavement, parking overlay	16,170		2,695		2,695	2,695		5,390	2,695		8,085
4	Gravel road, replenish (5%)	2,141		2,141	(2,141)		2,141	(2,141)		2,141	(2,141)	
5	Concrete sidewalk (20%)	1,955		326		326	326		652	326		978
6	Concrete sidewalk (20%)	1,955		75		75	75		150	75		226
7	Concrete sidewalk (20%)	1,955		43		43	43		85	43		128
8	Fence, 3-rail (vinyl) @ clubhouse	6,670		392		392	392		785	392		1,177
9	Vinyl screen, 6' h x 12' w @ clubhouse	1,656		97		97	97		195	97		292
10	Entry monument sign	1,000		100		100	100		200	100		300
11	Sign & post, street	2,500		250		250	250		500	250		750
12	Septic tank & field, clubhouse	8,000		889		889	889		1,778	889		2,667
	BUILDING EXTERIOR											
13	CH - Shingle asphalt/fiberglass	6,820		273		273	273		546	273		818
14	CH - Gutter & downspout, 5" aluminu	1,050		42		42	42		84	42		126
15	CH - Siding & trim, vinyl	8,269		486		486	486		973	486		1,459
16	CH - Window, opening	7,770		288		288	288		576	288		863
17	CH - Entry door, solid wood, fan lite	900		82		82	82		164	82		245
18	CH - Entry door, metal, 1/2 glass	800		133		133	133		267	133		400
19	CH - Entry door, metal, 6-panel	750		68		68	68		136	68		205
20	CH - Entry door, wood, 6-panel	1,400		127		127	127		255	127		382
21	CH - Storm doors	1,500		136		136	136		273	136		409
22	SS - Shingle asphalt/fiberglass	2,283		91		91	91		183	91		274
23	SS - Siding & trim, vinyl	3,938		232		232	232		463	232		695
24	SS - Window, opening	1,260		115		115	115		229	115		344
25	SS - Entry door, wood, 1/2 glass	325		30		30	30		59	30		89
26	SS - Garage door, fiberglass, 7x12	1,500		167		167	167		333	167		500
27	P - Shingle asphalt/fiberglass	2,998		120		120	120		240	120		360
28	P - Siding & trim, wood	2,125		193		193	193		386	193		580
29	P - Concrete slab	7,450		186		186	186		373	186		559
30	GS - Shed replace	2,750		212		212	212		423	212		635
	CLUBHOUSE BUILDING INTERIOI											
31	Flooring, interior carpet	5,950		1,190		1,190	1,190		2,380	1,190		3,570
32	Flooring, vinyl sheet goods, kitchen	1,000		91		91	91		182	91		273
33	Flooring, ceramic, men's room	2,000		125		125	125		250	125		375
34	Flooring, ceramic, women's room	1,920		101		101	101		202	101		303
35	Wall tile, ceramic, men's room	1,620		101		101	101		203	101		304
36	Interior lighting, general	1,020		78		78	78		157	78		235
37	Ceiling fan	1,000		111		111	111		222	111		333
38	Kitchen, cabinets	4,400		629		629	629		1,257	629		1,886
39	Kitchen, laminate countertop	1,100		157		157	157		314	157		471

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM-4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2011 Reserve Funding	2011 Projected Replacements	2011 End of Year Balance	2012 Reserve Funding	2012 Projected Replacements	2012 End of Year Balance	2013 Reserve Funding	2013 Projected Replacements	2013 End of Year Balance
40	Kitchen, range, Jenn-Air	1,500		150		150	150		300	150		450
41	Kitchen, range, GE	550		110		110	110		220	110		330
42	Kitchen, refrigerator, GE	1,000		143		143	143		286	143		429
43	Kitchen, refrigerator, Frigidaire	650		72		72	72		144	72		217
44	Restroom, renovate, men's	6,250		391		391	391		781	391		1,172
45	Restroom, renovate, women's	6,000		375		375	375		750	375		1,125
46	Office furnishings, allowance	1,000		111		111	111		222	111		333
47	Computer station, desktop	1,200		300		300	300		600	300		900
48	Office equipment (allowance)	1,000		250		250	250		500	250		750
	BUILDING INTERIOR (cont.)											
49	Love seats	1,000		167		167	167		333	167		500
50	Upholstered chair, large	350		58		58	58		117	58		175
51	End table	675		45		45	45		90	45		135
52	Table lamp	450		56		56	56		113	56		169
53	Book shelf, 30" w x 72" h	500		26		26	26		53	26		79
54	Book shelf, 30" w x 42" h	600		32		32	32		63	32		95
55	Artwork	1,250		83		83	83		167	83		250
56	Stack chair	945		86		86	86		172	86		258
57	Folding chair	1,350		123		123	123		245	123		368
58	Folding chair, upholstered	1,925		175		175	175		350	175		525
59	Table, laminate top	2,000		182		182	182		364	182		545
60	Misc. tables	1,050		95		95	95		191	95		286
61	HVAC, furnace/ air handler - gas fired	6,000		353		353	353		706	353		1,059
62	HVAC, outdoor unit, 3 ton, compresso	1,200		86		86	86		171	86		257
	SWIMMING POOL											
63	Swimming pool, structure	152,100		8,947		8,947	8,947		17,894	8,947		26,841
64	Swimming pool, coping	11,000		647		647	647		1,294	647		1,941
65	Wading pool, structure	11,830		696		696	696		1,392	696		2,088
66	Wading pool, coping	3,000		176		176	176		353	176		529
67	Swimming pool, concrete deck, 25%	11,440		1,040		1,040	1,040		2,080	1,040		3,120
68	Swimming pool, concrete deck, 25%	11,440		715		715	715		1,430	715		2,145
69	Swimming pool, concrete deck, 25%	11,440		545		545	545		1,090	545		1,634
70	Swimming pool, concrete deck, 25%	11,440		440		440	440		880	440		1,320
71	Swimming pool pump (3 hp)	1,000		250		250	250		500	250		750
72	Swimming pool filter	1,800		120		120	120		240	120		360
73	Swimming pool filter	1,800		95		95	95		189	95		284
74	Pool furniture, allowance	1,000		167		167	167		333	167		500
75	Perimeter fence - 4' (chain link)	6,480		926		926	926		1,851	926		2,777
	COURTS & RECREATION EQUIPM											
76	Tennis court, color coat	10,000		1,429		1,429	1,429		2,857	1,429		4,286
77	Tennis court, resurface/overlay	36,000		2,769		2,769	2,769		5,538	2,769		8,308
78	Tennis court, post & footings	5,200		400		400	400		800	400		1,200
79	Tennis court, net	1,400		233		233	233		467	233		700
80	Tennis court, fence	10,800		1,200		1,200	1,200		2,400	1,200		3,600
81	Basketball court, concrete, replace	3,480		268		268	268		535	268		803
82	Basketball pole & backstop	1,200		600		600	600	(1,200)		60		60
83	Tot lot - arch climber	1,000		167		167	167		333	167		500
84	Tot lot - slide	1,500		250		250	250		500	250		750
85	Tot lot - swing	1,800		300		300	300		600	300		900
86	Tot lot - merry-go-round	1,100		183		183	183		367	183		550
87	Tot lot - spring toy	5,500		917		917	917		1,833	917		2,750
88	Tot lot - Remove old equipment	1,000		500		500	500	(1,000)		20		20
89	Picnic tables	2,400		218		218	218		436	218		655
	DOCKS AND BULKHEADS											
90	Pier decking	6,850		623		623	623		1,245	623		1,868
91	Pier structure	10,960		422		422	422		843	422		1,265
92	Piling, freestanding	7,000		269		269	269		538	269		808
93	Bulkhead, cap, finish repair	1,080		1,080	(1,080)		11		11	11		22
94	Bulkhead, cap,	2,100		124		124	124		247	124		371
95	Bulkhead, refurbish, 10% of repl.	7,875		303		303	303		606	303		909
96	Bulkhead, replace	78,750		1,969		1,969	1,969		3,938	1,969		5,906
97	Boat ramp	6,120		291		291	291		583	291		874
	GOLF COURSE											
98	GC Regrading & Sand Traps	20,000		20,000	(20,000)		1,000		1,000	1,000		2,000
99	GC Landscaping	10,000		5,000		5,000	5,000	(10,000)		500		500
100	GC Putting Practice Green	1,000		1,000	(1,000)		67		67	67		133

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 home owner 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, street lights, 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 U.S. Census, there were 130,000 Community Associations in 1990. 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, 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 two generally accepted accounting methods; the Cash Flow Method and the Component Method. Section A Replacement Reserve Analysis includes graphic and tabular presentations of these methods and current Association funding.

- 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.

- Section E Attachments. 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).

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:

- Component Method. This method is a time tested mathematical model developed by HUD in the early 1980s. It 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.

- 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. This method usually results in a calculated requirement for annual contribution somewhat less than that arrived at by the Component Method of analysis.

  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 which is less than that arrived at by the Component Method.

- Adjusted Cash Flow Analysis. This program has the ability to modify the Cash Flow Method to take into account forecasted inflation and interest rates, thereby producing an Adjusted Cash Flow Analysis. Attempting to forecast future inflation and interest rates and the impact of changing technology is highly tenuous. Therefore, in most cases it is preferable to make a new schedule periodically rather than attempt to project far into the future. We will provide more information on this type of analysis upon request.

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 number 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