REPLACEMENT RESERVE REPORT FY 2016
ULMSTEAD CLUB, INC.

REPLACEMENT RESERVE REPORT FY 2016

ULMSTEAD CLUB, INC.

millerdodson ASSOCIATES Capital Reserve Consultants

Community Management by:

ULMSTEAD CLUB, INC.

President, Ken Paquin

P.O. Box 9754
Arnold, Maryland 21012
410.757.5778
kpaq@verizon.net

Consultant:

millerdodson ASSOCIATES Capital Reserve Consultants

929 West Street, Suite 310
Annapolis, MD 21401
410.268.0479
800.850.2835

www.mdareserves.com

INTENTIONALLY LEFT BLANK

REPLACEMENT RESERVE REPORT

ULMSTEAD CLUB, INC.

ARNOLD, MARYLAND

Scope. Ulmstead Club Inc. manages the recreational areas located within the community of Ulmstead Estates located in Arnold, Maryland. The community recreational areas consists of a Community Center, Equestrian and stables area, tennis courts, ball fields, Ulmstead Point park area, and three nautical pier and dock areas supported by 345 residential units. The survey examined the common elements of the property, including:

- Asphalt and gravel parking.
- Concrete and wood steps and fencing.
- Bulkheads, rip rap, and pier / dock areas.
- Community Center building exteriors and common interior areas.
- Park area (including tot lots), tennis courts, and ball fields.

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

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

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

- **Inventory of Items Owned by the Association.** Section B lists the Projected Replacements of the commonly owned items that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about excluded items, which are items whose replacements are not scheduled for funding from Replacement Reserves.

- **Condition of Items Owned by the Association.** Section B includes our estimates of the normal economic life and the remaining economic life for the projected replacements. Section C provides a year-by-year listing of the projected replacements. Section D provides additional detail for items that are unique or deserving of attention because of their condition or the manner in which they have been treated in this study.

- **Financial Plan.** The Association has a fiduciary responsibility to protect the appearance, value, and safety of the property and it is therefore essential the Association have a financial plan that provides funding for the projected replacements. In conformance with American Institute of Certified Public Accountant guidelines, Section A, Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by the Cash Flow Method. Section A, Replacement Reserve Analysis includes graphic and tabular presentations of the Association's current funding and the recommended funding based on the Cash Flow Method. An Executive Summary of these calculations is provided on Page A1. The alternative Component Method of funding is provided in the Appendix.

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

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

- Miller - Dodson performed a visual evaluation on March 9, 2016 to determine a remaining useful life and replacement cost for the commonly owned elements of this facility.

- This study contains additional recommendations to address inflation for the Cash Flow Method only. For this recommendation, Miller - Dodson uses the Producers Price Index (PPI), which gauges inflation in manufacturing and construction. Please see page A5 for further details.

Current Funding. This reserve study has been prepared for Fiscal 2016 covering the period from January 1, 2016 to December 31, 2016. The Replacement Reserves on deposit as of January 1, 2016 are reported to be:

Ulmstead Club - General	$183,684.00
Ulmstead Club - Nautical	(251,112.00)
Ulmstead Club - Tennis	49,654.00

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

Acknowledgement. Miller - Dodson Associates would like to acknowledge the assistance and input of the Ulmstead Club President, Mr. Ken Paquin and Board members, Mr. Stephen Blumberg and Mr. Brain Poole, who provided very helpful insight into the current operations of the property.

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

Respectfully submitted,

millerdodson ASSOCIATES | Capital Reserve Consultants

Harvey "Sonny" Mosier, RS
Reserve Specialist

INTENTIONALLY LEFT BLANK

EXECUTIVE SUMMARY

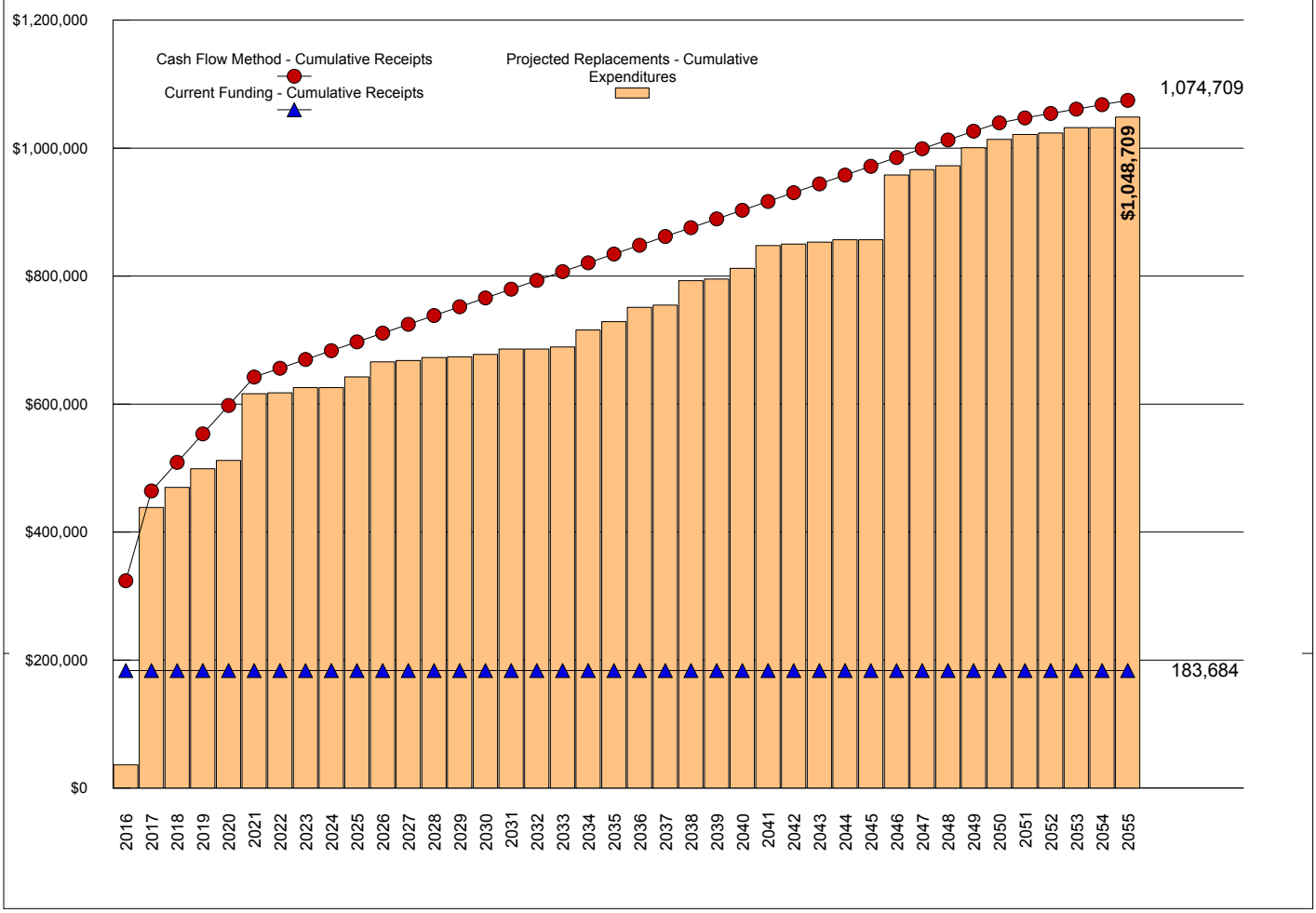
The UCI - General Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 47 Projected Replacements identified in the Replacement Reserve Inventory.

$140,366 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2016**
$33.90 Per unit (average), minimum monthly funding of Replacement Reserves

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

UCI - General reports a that the Association is currently not funding Replacement Reserves.
This Study contains the information necessary for the Association to develop a Funding Plan to address the $1,048,709 of Projected Replacements identified in the Replacement Reserve Inventory over the 40-year Study Period.

#1 - Cumulative Replacement Reserve Funding and Expenditures Graph



The Current Funding Objective as calculated by the Component Method (Fully Funded) is $589,977 making the reserve account 31.1% funded. See the Appendix for more information on this method.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

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

2016 | **STUDY YEAR**

The Association reports that their accounting year begins on January 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on January 1, 2016.

40 Years | **STUDY PERIOD**

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

$183,684 | **STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling $183,684 at the start of the Study Year.

Level Two | **LEVEL OF SERVICE**

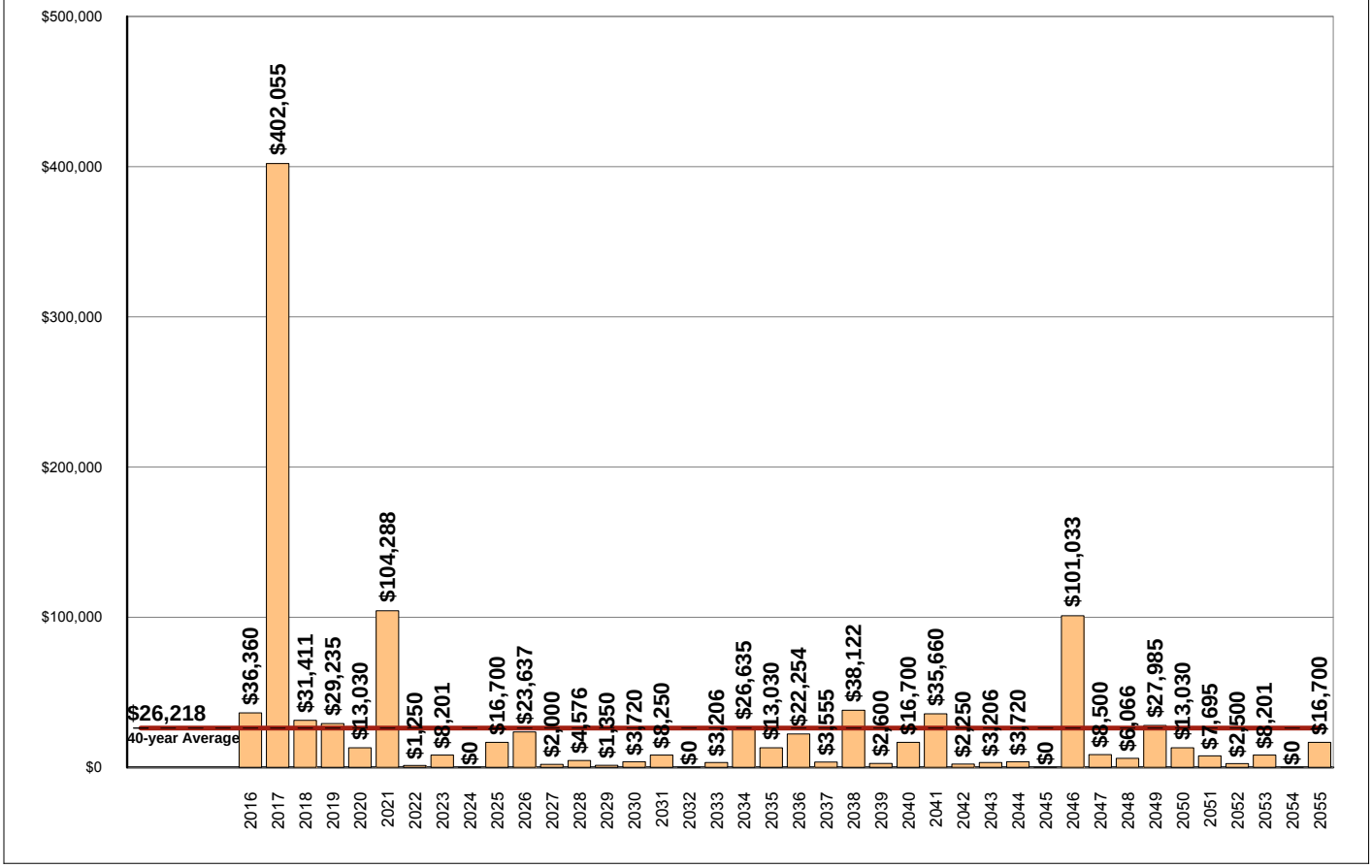
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

$1,048,709 | **REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The UCI - General Replacement Reserve Inventory identifies 47 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be $1,048,709 over the 40-year Study Period. The Projected Replacements are divided into 9 major categories starting on Page B3. Pages B1-B2 provide detailed information on the Replacement Reserve Inventory.

#2 - Annual Expenditures for Projected Replacements Graph

This graph shows annual expenditures for Projected Replacements over the 40-year Study Period. The red line shows the average annual expenditure of $26,218. Section C provides a year by year Calender of these expenditures.



UPDATING

UPDATING OF THE FUNDING PLAN

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

UPDATING OF THE REPLACEMENT RESERVE STUDY

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

ANNUAL EXPENDITURES

The annual expenditures that comprise the $1,048,709 of Projected Expenditures over the 40-year Study Period are detailed in Table 3. A year-by-year listing of the specific projects can be found beginning on Page C2.

#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 40

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Starting Balance	$183,684									
Projected Replacements	($36,360)	($402,055)	($31,411)	($29,235)	($13,030)	($104,288)	($1,250)	($8,201)		($16,700)
End of Year Balance	$147,324	($254,731)	($286,142)	($315,377)	($328,407)	($432,695)	($433,945)	($442,145)	($442,145)	($458,845)
Cumulative Expenditures	($36,360)	($438,415)	($469,826)	($499,061)	($512,091)	($616,379)	($617,629)	($625,829)	($625,829)	($642,529)
Cumulative Receipts	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684
Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Projected Replacements	($23,637)	($2,000)	($4,576)	($1,350)	($3,720)	($8,250)		($3,206)	($26,635)	($13,030)
End of Year Balance	($482,482)	($484,482)	($489,058)	($490,408)	($494,128)	($502,378)	($502,378)	($505,584)	($532,219)	($545,249)
Cumulative Expenditures	($666,166)	($668,166)	($672,742)	($674,092)	($677,812)	($686,062)	($686,062)	($689,268)	($715,903)	($728,933)
Cumulative Receipts	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684
Year	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**
Projected Replacements	($22,254)	($3,555)	($38,122)	($2,600)	($16,700)	($35,660)	($2,250)	($3,206)	($3,720)	
End of Year Balance	($567,503)	($571,058)	($609,180)	($611,780)	($628,480)	($664,140)	($666,390)	($669,596)	($673,316)	($673,316)
Cumulative Expenditures	($751,187)	($754,742)	($792,864)	($795,464)	($812,164)	($847,824)	($850,074)	($853,280)	($857,000)	($857,000)
Cumulative Receipts	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684
Year	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**2055**
Projected Replacements	($101,033)	($8,500)	($6,066)	($27,985)	($13,030)	($7,695)	($2,500)	($8,201)		($16,700)
End of Year Balance	($774,348)	($782,848)	($788,914)	($816,899)	($829,929)	($837,624)	($840,124)	($848,325)	($848,325)	($865,025)
Cumulative Expenditures	($958,032)	($966,532)	($972,598)	($1,000,583)	($1,013,613)	($1,021,308)	($1,023,808)	($1,032,009)	($1,032,009)	($1,048,709)
Cumulative Receipts	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684	$183,684

Table #3 shows the annual costs for Projected Replacements and the cumulative annual expenditures for the Projected Replacements. Table #3 also shows the Starting Balance and Current Annual Funding if reported by Association. When this information is provided, Table #3 will calculate the consequences of continuing to fund Replacement Reserves at current levels over the 40-year Study Period.

This information is for use by the Association for the development of a Funding Plan. The Funding Plan is a critical planning tool if the Association is to provide timely and adequate funding for the $1,048,709 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

CASH FLOW METHOD FUNDING

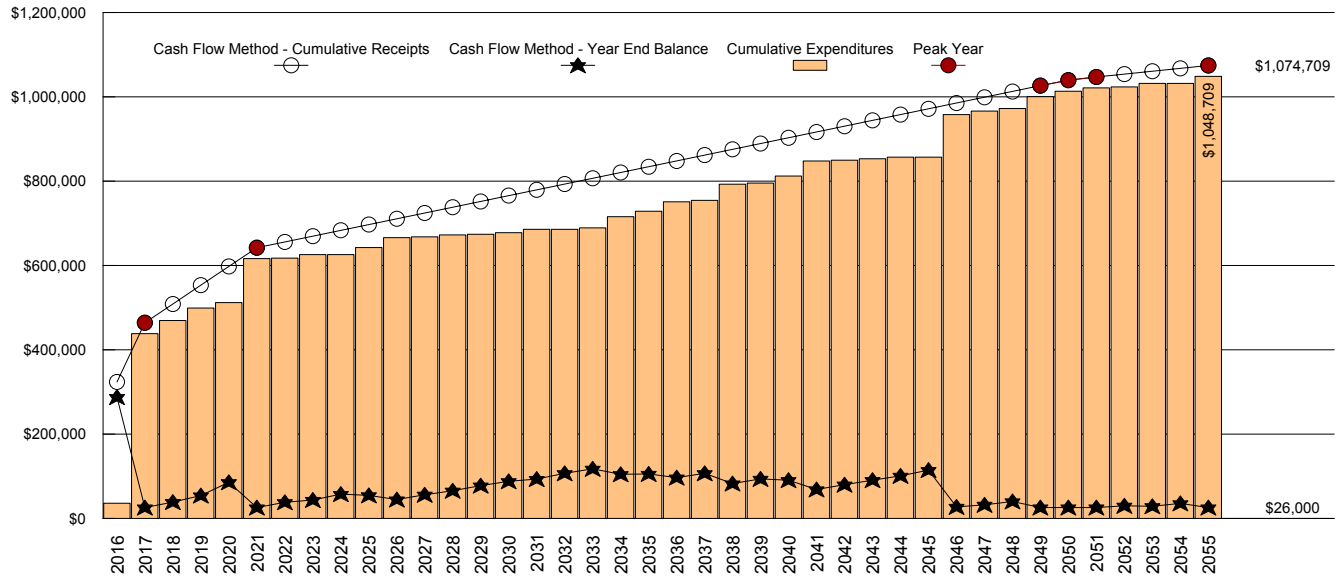
$140,366 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2016**

$33.90 Per unit (average), minimum monthly funding of Replacement Reserves

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

- Peak Years. The First Peak Year occurs in 2017 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of $438,415 of replacements from 2016 to 2017. Recommended funding declines from $140,366 in 2017 to $44,491 in 2018. Peak Years are identified in Chart 4 and Table 5.
- Minimum Balance. The calculations assume a Minimum Balance of $26,000 in Replacement Reserves. This is approx. 12 months of average expenditures based on the $26,218, 40-year average annual expenditure.
- Cash Flow Method Study Period. Cash Flow Method calculates funding for $1,048,709 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2055 and in 2055, the end of year balance will always be the Minimum Balance.

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



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

Year	2016	1st Peak - 2017	2018	2019	2020	2nd Peak - 2021	2022	2023	2024	2025
Starting Balance	$183,684									
Projected Replacements	($36,360)	($402,055)	($31,411)	($29,235)	($13,030)	($104,288)	($1,250)	($8,201)		($16,700)
Annual Deposit	$140,366	$140,366	$44,491	$44,491	$44,491	$44,491	$13,720	$13,720	$13,720	$13,721
End of Year Balance	$287,690	$26,000	$39,080	$54,336	$85,797	$26,000	$38,470	$43,990	$57,710	$54,731
Cumulative Expenditures	$36,360	$438,415	$469,826	$499,061	$512,091	$616,379	$617,629	$625,829	$625,829	$642,529
Cumulative Receipts	$324,050	$464,415	$508,906	$553,397	$597,888	$642,379	$656,099	$669,819	$683,540	$697,260

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Projected Replacements	($23,637)	($2,000)	($4,576)	($1,350)	($3,720)	($8,250)		($3,206)	($26,635)	($13,030)
Annual Deposit	$13,721	$13,721	$13,721	$13,721	$13,721	$13,721	$13,721	$13,721	$13,721	$13,722
End of Year Balance	$44,815	$56,535	$65,680	$78,051	$88,052	$93,523	$107,244	$117,760	$104,846	$105,538
Cumulative Expenditures	($666,166)	($668,166)	($672,742)	($674,092)	($677,812)	($686,062)	($686,062)	($689,268)	($715,903)	($728,933)
Cumulative Receipts	$710,981	$724,701	$738,422	$752,143	$765,864	$779,585	$793,306	$807,028	$820,749	$834,471

Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Projected Replacements	($22,254)	($3,555)	($38,122)	($2,600)	($16,700)	($35,660)	($2,250)	($3,206)	($3,720)	
Annual Deposit	$13,722	$13,722	$13,722	$13,722	$13,722	$13,722	$13,722	$13,722	$13,722	$13,723
End of Year Balance	$97,006	$107,172	$82,773	$93,895	$90,917	$68,979	$80,451	$90,968	$100,970	$114,693
Cumulative Expenditures	($751,187)	($754,742)	($792,864)	($795,464)	($812,164)	($847,824)	($850,074)	($853,280)	($857,000)	($857,000)
Cumulative Receipts	$848,192	$861,914	$875,636	$889,358	$903,080	$916,803	$930,525	$944,247	$957,970	$971,692

Year	2046	2047	2048	3rd Peak - 2049	4th Peak - 2050	5th Peak - 2051	2052	2053	2054	6th Peak - 2055
Projected Replacements	($101,033)	($8,500)	($6,066)	($27,985)	($13,030)	($7,695)	($2,500)	($8,201)		($16,700)
Annual Deposit	$13,723	$13,723	$13,723	$13,723	$13,030	$7,695	$6,850	$6,850	$6,850	$6,850
End of Year Balance	$27,383	$32,606	$40,262	$26,000	$26,000	$26,000	$30,350	$29,000	$35,850	$26,000
Cumulative Expenditures	($958,032)	($966,532)	($972,598)	($1,000,583)	($1,013,613)	($1,021,308)	($1,023,808)	($1,032,009)	($1,032,009)	($1,048,709)
Cumulative Receipts	$985,415	$999,138	$1,012,860	$1,026,583	$1,039,613	$1,047,308	$1,054,158	$1,061,008	$1,067,858	$1,074,709

INFLATION ADJUSTED FUNDING

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

$140,366 **2016 - CASH FLOW METHOD RECOMMENDED FUNDING**

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

$159,458 **2017 - INFLATION ADJUSTED FUNDING**

A new analysis calculates 2017 funding based on three assumptions;

- Replacement Reserves on Deposit totaling $287,690 on January 1, 2017.
- All 2016 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than $36,360.
- Construction Cost Inflation of 4.50 percent in 2016.

The $159,458 inflation adjusted funding in 2017 is a 13.60 percent increase over the non-inflation adjusted 2017 funding of $140,366.

$46,335 **2018 - INFLATION ADJUSTED FUNDING**

A new analysis calculates 2018 funding based on three assumptions;

- Replacement Reserves on Deposit totaling $27,000 on January 1, 2018.
- All 2017 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than $420,148.
- Construction Cost Inflation of 4.50 percent in 2017.

The $46,335 inflation adjusted funding in 2018 is a 4.15 percent increase over the non-inflation adjusted 2018 funding of $44,491.

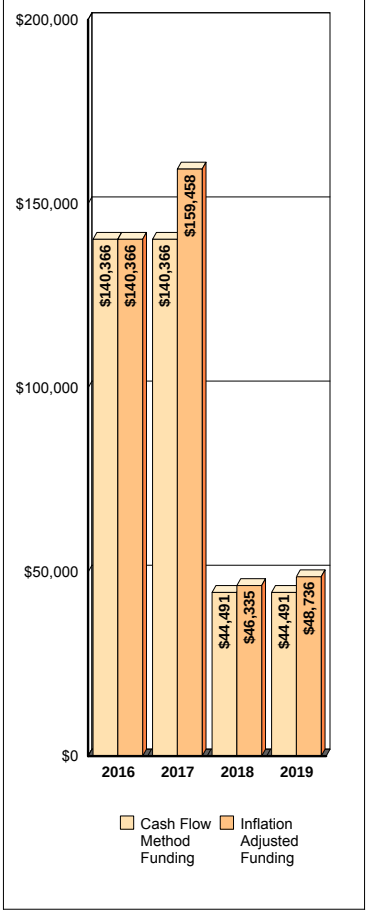
$48,736 **2019 - INFLATION ADJUSTED FUNDING**

A new analysis calculates 2019 funding based on three assumptions;

- Replacement Reserves on Deposit totaling $39,034 on January 1, 2019.
- All 2018 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than $34,301.
- Construction Cost Inflation of 4.50 percent in 2018.

The $48,736 inflation adjusted funding in 2019 is a 9.54 percent increase over the non-inflation adjusted funding of $44,491.

#6 - Inflation Adjusted Funding



YEAR FIVE & BEYOND

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

INFLATION ADJUSTMENT

Prior to approving a budget based upon the 2017, 2018 and 2019 inflation adjusted funding calculations above, the 4.50 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percent), contact Miller Dodson + Associates prior to using the Inflation Adjusted Funding.

INTEREST ON RESERVES

The recommended funding calculations do not account for interest earned on Replacement Reserves.
In 2016, based on a 1.00 percent interest rate, we estimate the Association may earn $2,357 on an average balance of $235,687, $1,573 on an average balance of $157,345 in 2017, and $330 on $33,017 in 2018. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2016 funding from $140,366 to $138,009 (a 1.68 percent reduction), $159,458 to $157,885 in 2017 (a 0.99 percent reduction), and $46,335 to $46,005 in 2018 (a 0.71 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- UCI - General has 345 units. The type of property is a voluntary social and recreational club.
- The Cash Flow Method calculates the minimum annual funding necessary to prevent Replacement Reserves from dropping below the Minimum Balance. Failure to fund at least the recommended levels may result in funding not being available for the Projected Replacements listed in the Replacement Reserve Inventory.
- The accuracy of the Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 47 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B1.

REPLACEMENT RESERVE INVENTORY
GENERAL INFORMATION

UCI - General - Replacement Reserve Inventory identifies 95 items. Two types of items are identified, Projected Replacements and Excluded Items:

- PROJECTED REPLACEMENTS. 47 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 $706,545. Replacements totaling $1,048,709 are scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

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

- EXCLUDED ITEMS. 48 of the items are Excluded Items, and expenditures for these items are NOT scheduled for funding from Replacement Reserves. The accuracy of the calculations made in the Replacement Reserve Analysis is dependent on expenditures NOT being made for Excluded Items. The Excluded Items are listed in the Replacement Reserve Inventory to identify specific items and categories of items that are not to be funded from Replacement Reserves. There are multiple categories of items that are typically excluded from funding by Replacement Reserves, including but not limited to:

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

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

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

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

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

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

- CATEGORIES. The 95 items included in the UCI - General Replacement Reserve Inventory are divided into 9 major categories. Each category is printed on a separate page, Pages B3 to B10.

- LEVEL OF SERVICE. This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level Two - Update (with site visit and on-site review), as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

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

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- INVENTORY DATA. Each of the 47 Projected Replacements listed in the Replacement Reserve Inventory includes the following data:

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

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

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

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

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

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

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

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

  Each of the 48 Excluded Items includes the Item Description, Units, and Number of Units. Many of the Excluded Items are listed as a 'Lump Sum' with a quantity of 1. For the Excluded Items, this indicates that all of the items identified by the 'Item Description' are excluded from funding by Replacement Reserves.

- REVIEW OF EXPENDITURES. This Replacement Reserve Study should be reviewed by an accounting professional representing the Association prior to implementation.

- PARTIAL FUNDING. Items may have been included in the Replacement Reserve Inventory at less than 100 percent of their full quantity and/or replacement cost. This is done on items that will never be replaced in their entirety, but which may require periodic replacements over an extended period of time. The assumptions that provide the basis for any partial funding are noted in the Comments section.

- REMAINING ECONOMIC LIFE GREATER THAN 40 YEARS. The calculations do not include funding for initial replacements beyond 40 years. These replacements are included in this Study for tracking and evaluation. They should be included for funding in future Studies, when they enter the 40-year window.

PARK AREA (PA)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
1	(PA) Asphalt pavement, seal coat	sf	8,200	$0.18	5	7	$1,476
2	(PA) Asphalt pavement, overlay	sf	8,200	$1.68	20	2	$13,776
3	(PA) Lot entrance gates	ea	2	$745.00	30	2	$1,490
4	(PA) Wood platform and steps	ls	1	$1,740.00	15	7	$1,740
5	(PA) Park area benches	ea	6	$650.00	15	4	$3,900
6	(PA) Picnic tables (33%)	ea	7	$465.00	15	3	$3,255
7	(PA) Picnic tables (33%)	ea	7	$465.00	15	5	$3,255
8	(PA) Picnic tables (33%)	ea	7	$465.00	15	7	$3,255
9	(PA) Multi-purpose play unit	ea	1	$17,850.00	15	3	$17,850
10	(PA) Metal swing set	ea	2	$1,975.00	15	3	$3,950
11	(PA) Arc climber	ea	1	$1,550.00	15	4	$1,550
12	(PA) Kiddiepillar tractor climber	ea	1	$3,250.00	15	4	$3,250
13	(PA) Single spring ride	ea	2	$985.00	15	4	$1,970
14	(PA) Double spring ride	ea	1	$1,360.00	15	4	$1,360
15	(PA) Horizonital ladder	ea	1	$1,580.00	15	3	$1,580
16	(PA) Bean bag toss	ea	1	$1,000.00	15	4	$1,000
17	(PA) Alum.bulkhead - engineer study	ls	1	$30,000.00	60	none	$30,000
18	(PA) Alum.bulkhead - living shoreline	ls	1	$330,000.00	60	1	$330,000
					PARK AREA (PA) - Replacement Costs - Subtotal		$424,657

PARK AREA (PA)
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.

- Alum.bulkhead - Engineer Study, UCI has budgeted $30,000.00 for an engineering study of Ulmstead Point park shoreline as a first step in replaceing the aluminium bulkhead system.

- (PA) Wood split rail fencing - UCI has opted to replace on an as-needed basis.
- (PA) Trash containers - UCI has opted to replace on an as-needed basis.
- (PA) Barbque grills - UCI has opted to replace on an as-needed basis.
- (PA) Tot lot wood retaining wall - UCI has opted to replace on an as-needed basis.
- (PA) Tot lot wood border - UCI has opted to replace on an as-needed basis.

BALL FIELDS
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
19	Baseball backstop - 10' chain link	ft	50	$19.60	30	10	$980
20	Baseball backstop - 8' chain link	ft	40	$18.40	30	10	$736
21	Baseball backstop - 6' chain link	ft	40	$16.40	30	10	$656
22	Wood practice board	sf	192	$8.10	20	1	$1,555

BALL FIELDS - Replacement Costs - Subtotal $3,927

BALL FIELDS
COMMENTS

COMMUNITY CENTER (CC)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
23	(CC) Asphalt pavement, seal coat	sf	9,610	$0.18	5	7	$1,730
24	(CC) Asphalt pavement, overlay	sf	9,610	$1.68	20	2	$16,145
25	(CC) Parking lot and building lighting	ls	1	$2,765.00	30	10	$2,765
26	(CC) Asphalt shingle roofing - replace	sf	14,450	$5.85	25	5	$84,533
27	(CC) Asphalt shingle roofing - repair	ls	1	$1,000.00	25	1	$1,000
28	(CC) Aluminum gutters & downspouts	lf	450	$6.00	25	5	$2,700
29	(CC) Cupola	ea	5	$2,400.00	25	5	$12,000
30	(CC) Brick and CMU tuckpointing	ls	1	$2,000.00	10	1	$2,000
31	(CC) Painted wood sign and lighting	ea	3	$450.00	10	3	$1,350
32	(CC) Vinyl siding and soffits - replace	sf	2,940	$5.85	35	20	$17,199
33	(CC) Vinyl siding and soffits - repair	ls	1	$1,000.00	35	1	$1,000
34	(CC) Windows	sf	390	$44.00	35	25	$17,160
35	(CC) Windows (upper east room)	sf	60	$44.00	35	none	$2,640
36	(CC) Exterior metal doors	ea	2	$685.00	20	12	$1,370
37	(CC) Exterior wood entrance door	ea	1	$1,250.00	20	6	$1,250
38	(CC) Equestrian ring erosion controls	ls	1	$60,000.00	60	1	$60,000
				COMMUNITY CENTER (CC) - Replacement Costs - Subtotal			$224,841

COMMUNITY CENTER (CC)
COMMENTS

- Brick and CMU tuckpointing includes entrance monuments, Community Center exterior wall, and pavers at bldg. entrance.

- 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, such as the concrete wheel stops, have not been scheduled for funding from Replacement Reserves.

- (CC) Equestrian area and stable components - UCI has opted to replace on an as-needed basis.

COMMUNITY CENTER INTERIORS (CCI)
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
39	(CCI) Hall carpet	sf	800	$4.65	14	none	$3,720
40	(CCI) Emergency and exit lights	ls	1	$1,500.00	21	15	$1,500
41	(CCI) Electrical service	ls	1	$4,950.00	40	15	$4,950
42	(CCI) Fire suppression allowance	ls	1	$1,800.00	5	5	$1,800
43	(CCI) HVAC	ea	2	$8,350.00	15	9	$16,700
44	(CCI) HVAC	ea	2	$8,350.00	15	10	$16,700
45	(CCI) Water heater	ea	1	$1,250.00	20	3	$1,250
46	(CCI) Womens restroom renovation	ls	1	$3,500.00	30	1	$3,500
47	(CCI) Mens restroom renovation	ls	1	$3,000.00	30	1	$3,000

COMMUNITY CENTER INTERIORS (CCI) - Replacement Costs - Subtotal $53,120

COMMUNITY CENTER INTERIORS (CCI)
COMMENTS

- UCI has opted to defer the refurbishment / renovation of the Community Center interiors and to replace components on an as-needed basis from operating funds. We recommend that this be reconsidered when the Reserve Study is updated.

UNIT IMPROVEMENTS EXCLUSIONS

EXCLUDED ITEMS

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

UNIT IMPROVEMENTS EXCLUSIONS

COMMENTS

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

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

UTILITY EXCLUSIONS
EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	Primary electric feeds	ls	1				EXCLUDED
	Electric transformers	ls	1				EXCLUDED
	Cable TV systems and structures	ls	1				EXCLUDED
	Telephone cables and structures	ls	1				EXCLUDED
	Site lighting	ls	1				EXCLUDED
	Gas mains and meters	ls	1				EXCLUDED
	Water mains and meters	ls	1				EXCLUDED
	Sanitary sewers	ls	1				EXCLUDED
	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
	Painting of curbs	ls	1				EXCLUDED
	Striping of parking spaces	ls	1				EXCLUDED
	Landscaping and site grading	ls	1				EXCLUDED
	Exterior painting	ls	1				EXCLUDED
	Interior painting	ls	1				EXCLUDED
	Janitorial service	ls	1				EXCLUDED
	Repair services	ls	1				EXCLUDED
	Partial replacements	ls	1				EXCLUDED
	Capital improvements	ls	1				EXCLUDED

MAINTENANCE AND REPAIR EXCLUSIONS

COMMENTS

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

GOVERNMENT EXCLUSIONS
EXCLUDED ITEMS

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

GOVERNMENT EXCLUSIONS
COMMENTS

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

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

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

PROJECTED ANNUAL REPLACEMENTS
GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 47 Projected Replacements in the UCI - General Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C2.

REPLACEMENT RESERVE ANALYSIS AND INVENTORY
POLICIES, PROCEDURES, AND ADMINISTRATION

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

PROJECTED REPLACEMENTS - YEARS ONE TO FIFTEEN

Item	2016 - STUDY YEAR	$
17	(PA) Alum.bulkhead - engine	$30,000
35	(CC) Windows (upper east r	$2,640
39	(CCI) Hall carpet	$3,720
	Total Scheduled Replacements	$36,360

Item	2017 - YEAR 2	$
18	(PA) Alum.bulkhead - living s	$330,000
22	Wood practice board	$1,555
27	(CC) Asphalt shingle roofing	$1,000
30	(CC) Brick and CMU tuckpoi	$2,000
33	(CC) Vinyl siding and soffits	$1,000
38	(CC) Equestrian ring erosior	$60,000
46	(CCI) Womens restroom rei	$3,500
47	(CCI) Mens restroom renov	$3,000
	Total Scheduled Replacements	$402,055

Item	2018 - YEAR 3	$
2	(PA) Asphalt pavement, ove	$13,776
3	(PA) Lot entrance gates	$1,490
24	(CC) Asphalt pavement, ove	$16,145
	Total Scheduled Replacements	$31,411

Item	2019 - YEAR 4	$
6	(PA) Picnic tables (33%)	$3,255
9	(PA) Multi-purpose play unit	$17,850
10	(PA) Metal swing set	$3,950
15	(PA) Horizonital ladder	$1,580
31	(CC) Painted wood sign and	$1,350
45	(CCI) Water heater	$1,250
	Total Scheduled Replacements	$29,235

Item	2020 - YEAR 5	$
5	(PA) Park area benches	$3,900
11	(PA) Arc climber	$1,550
12	(PA) Kiddiepillar tractor climl	$3,250
13	(PA) Single spring ride	$1,970
14	(PA) Double spring ride	$1,360
16	(PA) Bean bag toss	$1,000
	Total Scheduled Replacements	$13,030

Item	2021 - YEAR 6	$
7	(PA) Picnic tables (33%)	$3,255
26	(CC) Asphalt shingle roofing	$84,533
28	(CC) Aluminum gutters & do	$2,700
29	(CC) Cupola	$12,000
42	(CCI) Fire suppression allow	$1,800
	Total Scheduled Replacements	$104,288

Item	2022 - YEAR 7	$
37	(CC) Exterior wood entrance	$1,250
	Total Scheduled Replacements	$1,250

Item	2023 - YEAR 8	$
1	(PA) Asphalt pavement, sea	$1,476
4	(PA) Wood platform and ste	$1,740
8	(PA) Picnic tables (33%)	$3,255
23	(CC) Asphalt pavement, sea	$1,730
	Total Scheduled Replacements	$8,201

Item	2024 - YEAR 9	$
	No Scheduled Replacements	

Item	2025 - YEAR 10	$
43	(CCI) HVAC	$16,700
	Total Scheduled Replacements	$16,700

Item	2026 - YEAR 11	$
19	Baseball backstop - 10' chai	$980
20	Baseball backstop - 8' chain	$736
21	Baseball backstop - 6' chain	$656
25	(CC) Parking lot and building	$2,765
42	(CCI) Fire suppression allow	$1,800
44	(CCI) HVAC	$16,700
	Total Scheduled Replacements	$23,637

Item	2027 - YEAR 12	$
30	(CC) Brick and CMU tuckpoi	$2,000
	Total Scheduled Replacements	$2,000

Item	2028 - YEAR 13	$
1	(PA) Asphalt pavement, sea	$1,476
23	(CC) Asphalt pavement, sea	$1,730
36	(CC) Exterior metal doors	$1,370
	Total Scheduled Replacements	$4,576

Item	2029 - YEAR 14	$
31	(CC) Painted wood sign and	$1,350
	Total Scheduled Replacements	$1,350

Item	2030 - YEAR 15	$
39	(CCI) Hall carpet	$3,720
	Total Scheduled Replacements	$3,720

PROJECTED REPLACEMENTS - YEARS SIXTEEN TO THIRTY

Item	2031 - YEAR 16	$
40	(CCI) Emergency and exit lig	$1,500
41	(CCI) Electrical service	$4,950
42	(CCI) Fire suppression allow	$1,800
	Total Scheduled Replacements	$8,250

Item	2032 - YEAR 17	$
	No Scheduled Replacements	

Item	2033 - YEAR 18	$
1	(PA) Asphalt pavement, sea	$1,476
23	(CC) Asphalt pavement, sea	$1,730
	Total Scheduled Replacements	$3,206

Item	2034 - YEAR 19	$
6	(PA) Picnic tables (33%)	$3,255
9	(PA) Multi-purpose play unit	$17,850
10	(PA) Metal swing set	$3,950
15	(PA) Horizonital ladder	$1,580
	Total Scheduled Replacements	$26,635

Item	2035 - YEAR 20	$
5	(PA) Park area benches	$3,900
11	(PA) Arc climber	$1,550
12	(PA) Kiddiepillar tractor climl	$3,250
13	(PA) Single spring ride	$1,970
14	(PA) Double spring ride	$1,360
16	(PA) Bean bag toss	$1,000
	Total Scheduled Replacements	$13,030

Item	2036 - YEAR 21	$
7	(PA) Picnic tables (33%)	$3,255
32	(CC) Vinyl siding and soffits	$17,199
42	(CCI) Fire suppression allow	$1,800
	Total Scheduled Replacements	$22,254

Item	2037 - YEAR 22	$
22	Wood practice board	$1,555
30	(CC) Brick and CMU tuckpoi	$2,000
	Total Scheduled Replacements	$3,555

Item	2038 - YEAR 23	$
1	(PA) Asphalt pavement, sea	$1,476
2	(PA) Asphalt pavement, ove	$13,776
4	(PA) Wood platform and ste	$1,740
8	(PA) Picnic tables (33%)	$3,255
23	(CC) Asphalt pavement, sea	$1,730
24	(CC) Asphalt pavement, ove	$16,145
	Total Scheduled Replacements	$38,122

Item	2039 - YEAR 24	$
31	(CC) Painted wood sign and	$1,350
45	(CCI) Water heater	$1,250
	Total Scheduled Replacements	$2,600

Item	2040 - YEAR 25	$
43	(CCI) HVAC	$16,700
	Total Scheduled Replacements	$16,700

Item	2041 - YEAR 26	$
34	(CC) Windows	$17,160
42	(CCI) Fire suppression allow	$1,800
44	(CCI) HVAC	$16,700
	Total Scheduled Replacements	$35,660

Item	2042 - YEAR 27	$
27	(CC) Asphalt shingle roofing	$1,000
37	(CC) Exterior wood entrance	$1,250
	Total Scheduled Replacements	$2,250

Item	2043 - YEAR 28	$
1	(PA) Asphalt pavement, sea	$1,476
23	(CC) Asphalt pavement, sea	$1,730
	Total Scheduled Replacements	$3,206

Item	2044 - YEAR 29	$
39	(CCI) Hall carpet	$3,720
	Total Scheduled Replacements	$3,720

Item	2045 - YEAR 30	$
	No Scheduled Replacements	

PROJECTED REPLACEMENTS - YEARS THIRTY-ONE TO FORTY-FIVE

Item	2046 - YEAR 31	$
26	(CC) Asphalt shingle roofing	$84,533
28	(CC) Aluminum gutters & do	$2,700
29	(CC) Cupola	$12,000
42	(CCI) Fire suppression allow	$1,800
	Total Scheduled Replacements	$101,033

Item	2047 - YEAR 32	$
30	(CC) Brick and CMU tuckpoi	$2,000
46	(CCI) Womens restroom rei	$3,500
47	(CCI) Mens restroom renov	$3,000
	Total Scheduled Replacements	$8,500

Item	2048 - YEAR 33	$
1	(PA) Asphalt pavement, sea	$1,476
3	(PA) Lot entrance gates	$1,490
23	(CC) Asphalt pavement, sea	$1,730
36	(CC) Exterior metal doors	$1,370
	Total Scheduled Replacements	$6,066

Item	2049 - YEAR 34	$
6	(PA) Picnic tables (33%)	$3,255
9	(PA) Multi-purpose play unit	$17,850
10	(PA) Metal swing set	$3,950
15	(PA) Horizonital ladder	$1,580
31	(CC) Painted wood sign and	$1,350
	Total Scheduled Replacements	$27,985

Item	2050 - YEAR 35	$
5	(PA) Park area benches	$3,900
11	(PA) Arc climber	$1,550
12	(PA) Kiddiepillar tractor climl	$3,250
13	(PA) Single spring ride	$1,970
14	(PA) Double spring ride	$1,360
16	(PA) Bean bag toss	$1,000
	Total Scheduled Replacements	$13,030

Item	2051 - YEAR 36	$
7	(PA) Picnic tables (33%)	$3,255
35	(CC) Windows (upper east r	$2,640
42	(CCI) Fire suppression allow	$1,800
	Total Scheduled Replacements	$7,695

Item	2052 - YEAR 37	$
33	(CC) Vinyl siding and soffits	$1,000
40	(CCI) Emergency and exit lig	$1,500
	Total Scheduled Replacements	$2,500

Item	2053 - YEAR 38	$
1	(PA) Asphalt pavement, sea	$1,476
4	(PA) Wood platform and ste	$1,740
8	(PA) Picnic tables (33%)	$3,255
23	(CC) Asphalt pavement, sea	$1,730
	Total Scheduled Replacements	$8,201

Item	2054 - YEAR 39	$
	No Scheduled Replacements	

Item	2055 - YEAR 40	$
43	(CCI) HVAC	$16,700
	Total Scheduled Replacements	$16,700

Item	2056 (beyond Study Period)	$
19	Baseball backstop - 10' chai	$980
20	Baseball backstop - 8' chain	$736
21	Baseball backstop - 6' chain	$656
25	(CC) Parking lot and building	$2,765
42	(CCI) Fire suppression allow	$1,800
44	(CCI) HVAC	$16,700
	Total Scheduled Replacements	$23,637

Item	2057 (beyond Study Period)	$
22	Wood practice board	$1,555
30	(CC) Brick and CMU tuckpoi	$2,000
	Total Scheduled Replacements	$3,555

Item	2058 (beyond Study Period)	$
1	(PA) Asphalt pavement, sea	$1,476
2	(PA) Asphalt pavement, ove	$13,776
23	(CC) Asphalt pavement, sea	$1,730
24	(CC) Asphalt pavement, ove	$16,145
39	(CCI) Hall carpet	$3,720
	Total Scheduled Replacements	$36,847

Item	2059 (beyond Study Period)	$
31	(CC) Painted wood sign and	$1,350
45	(CCI) Water heater	$1,250
	Total Scheduled Replacements	$2,600

Item	2060 (beyond Study Period)	$
	No Scheduled Replacements	

CASH FLOW METHOD ACCOUNTING SUMMARY

This UCI - General - Cash Flow Method Accounting Summary is an attachment to the UCI - General - Replacement Reserve Study dated Revised May 13, 2016 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2016, 2017, and 2018 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- CASH FLOW METHOD CATEGORY FUNDING REPORT, 2016, 2017, and 2018. Each of the 47 Projected Replacements listed in the UCI - General Replacement Reserve Inventory has been assigned to one of 4 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 $183,684 Beginning Balance (at the start of the Study Year) and the $325,222 of additional Replacement Reserve Funding in 2016 through 2018 (as calculated in the Replacement Reserve Analysis) to each of the 47 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and discussed below. The calculated data includes:
  - Identification and estimated cost of each Projected Replacement scheduled in years 2016 through 2018.
  - Allocation of the $183,684 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the $325,222 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2016 through 2018, by Chronological Allocation.

- CHRONOLOGICAL ALLOCATION. Chronological Allocation assigns Replacement Reserves to Projected Replacements on a "first come, first serve" basis in keeping with the basic philosophy of the Cash Flow Method. The Chronological Allocation methodology is outlined below.
  - The first step is the allocation of the $183,684 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 UCI - General the Beginning Balance funds all Scheduled Replacements in the Study Year through 2016 and provides partial funding (37%) of replacements scheduled in 2017.
  - The next step is the allocation of the $140,366 of 2016 Cash Flow Method Reserve Funding calculated in the Replacement Reserve Analysis. These funds are first allocated to fund the partially funded Projected Replacements and then to subsequent years in chronological order as outlined above.

    At UCI - General the Beginning Balance and the 2016 Replacement Reserve Funding, funds replacements through 2016 and partial funds (71.6%) replacements in 2017.
  - Allocations of the 2017 and 2018 Reserve Funding are done using the same methodology.
  - The Three-Year Replacement Funding Report details component by component allocations made by Chronological Allocation.

2016 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 47 Projected Replacements included in the UCI - General Replacement Reserve Inventory has been assigned to one of the 4 categories listed in TABLE CF1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of $183,684 as of the first day of the Study Year, January 1, 2016.
- Total reserve funding (including the Beginning Balance) of $324,050 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2016 being accomplished in 2016 at a cost of $36,360.

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

2016 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
PARK AREA (PA)	5 to 60 years	0 to 7 years	$424,657	$150,921	$115,210	($30,000)	$236,131
BALL FIELDS	20 to 30 years	1 to 10 years	$3,927	$570	$543		$1,113
COMMUNITY CENTER (CC)	5 to 60 years	0 to 25 years	$224,841	$26,091	$22,344	($2,640)	$45,795
COMMUNITY CENTER INTERIORS (CCI)	5 to 40 years	0 to 15 years	$53,120	$6,102	$2,269	($3,720)	$4,651

2017 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 47 Projected Replacements included in the UCI - General Replacement Reserve Inventory has been assigned to one of the 4 categories listed in TABLE CF2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $287,690 on January 1, 2017.
- Total reserve funding (including the Beginning Balance) of $464,415 from 2016 through 2017.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2017 being accomplished in 2017 at a cost of $402,055.

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

2017 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
PARK AREA (PA)	5 to 60 years	0 to 59 years	$424,657	$236,131	$106,506	($330,000)	$12,636
BALL FIELDS	20 to 30 years	0 to 9 years	$3,927	$1,113	$442	($1,555)	($0)
COMMUNITY CENTER (CC)	5 to 60 years	0 to 34 years	$224,841	$45,795	$31,569	($64,000)	$13,364
COMMUNITY CENTER INTERIORS (CCI)	5 to 40 years	0 to 14 years	$53,120	$4,651	$1,849	($6,500)	($0)

2018 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 47 Projected Replacements included in the UCI - General Replacement Reserve Inventory has been assigned to one of the 4 categories listed in TABLE CF3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $26,000 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $508,906 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2018 being accomplished in 2018 at a cost of $31,411.

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

2018 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2018 BEGINNING BALANCE	2018 RESERVE FUNDING	2018 PROJECTED REPLACEMENTS	2018 END OF YEAR BALANCE
PARK AREA (PA)	5 to 60 years	0 to 59 years	$424,657	$12,636	$39,110	($15,266)	$36,480
BALL FIELDS	20 to 30 years	8 to 19 years	$3,927	($0)			($0)
COMMUNITY CENTER (CC)	5 to 60 years	0 to 59 years	$224,841	$13,364	$4,131	($16,145)	$1,350
COMMUNITY CENTER INTERIORS (CCI)	5 to 40 years	1 to 29 years	$53,120	($0)	$1,250		$1,250

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF4 below details the allocation of the $183,684 Beginning Balance, as reported by the Association and the $325,222 of Replacement Reserve Funding calculated by the Cash Flow Method from 2016 to 2018, to the 47 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $183,684 on January 1, 2016.
- Replacement Reserves on Deposit totaling $287,690 on January 1, 2017.
- Replacement Reserves on Deposit totaling $26,000 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $508,906 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2016 to 2018 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $469,826.

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

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

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
	PARK AREA (PA)											
1	(PA) Asphalt pavement, seal coat	1,476										
2	(PA) Asphalt pavement, overlay	13,776					11,403		11,403	2,373	(13,776)	
3	(PA) Lot entrance gates	1,490					1,233		1,233	257	(1,490)	
4	(PA) Wood platform and steps	1,740										
5	(PA) Park area benches	3,900								2,947		2,947
6	(PA) Picnic tables (33%)	3,255								3,255		3,255
7	(PA) Picnic tables (33%)	3,255										
8	(PA) Picnic tables (33%)	3,255										
9	(PA) Multi-purpose play unit	17,850								17,850		17,850
10	(PA) Metal swing set	3,950								3,950		3,950
11	(PA) Arc climber	1,550								1,171		1,171
12	(PA) Kiddiepillar tractor climber	3,250								2,456		2,456
13	(PA) Single spring ride	1,970								1,488		1,488
14	(PA) Double spring ride	1,360								1,028		1,028
15	(PA) Horizonital ladder	1,580								1,580		1,580
16	(PA) Bean bag toss	1,000								756		756
17	(PA) Alum.bulkhead - engineer study	30,000	30,000		(30,000)							
18	(PA) Alum.bulkhead - living shoreline	330,000	120,921	115,210		236,131	93,869	(330,000)				
	BALL FIELDS											
19	Baseball backstop - 10' chain link	980										
20	Baseball backstop - 8' chain link	736										
21	Baseball backstop - 6' chain link	656										
22	Wood practice board	1,555	570	543		1,113	442	(1,555)				
	COMMUNITY CENTER (CC)											
23	(CC) Asphalt pavement, seal coat	1,730										
24	(CC) Asphalt pavement, overlay	16,145					13,364		13,364	2,781	(16,145)	
25	(CC) Parking lot and building lighting	2,765										
26	(CC) Asphalt shingle roofing - replace	84,533										
27	(CC) Asphalt shingle roofing - repair	1,000	366	349		716	284	(1,000)				
28	(CC) Aluminum gutters & downspouts	2,700										
29	(CC) Cupola	12,000										
30	(CC) Brick and CMU tuckpointing	2,000	733	698		1,431	569	(2,000)				
31	(CC) Painted wood sign and lighting	1,350								1,350		1,350
32	(CC) Vinyl siding and soffits - replace	17,199										
33	(CC) Vinyl siding and soffits - repair	1,000	366	349		716	284	(1,000)				
34	(CC) Windows	17,160										
35	(CC) Windows (upper east room)	2,640	2,640		(2,640)							
36	(CC) Exterior metal doors	1,370										
37	(CC) Exterior wood entrance door	1,250										
38	(CC) Equestrian ring erosion controls	60,000	21,986	20,947		42,933	17,067	(60,000)				

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
	COMMUNITY CENTER INTERIORS											
39	(CCI) Hall carpet	3,720	3,720		(3,720)							
40	(CCI) Emergency and exit lights	1,500										
41	(CCI) Electrical service	4,950										
42	(CCI) Fire suppression allowance	1,800										
43	(CCI) HVAC	16,700										
44	(CCI) HVAC	16,700										
45	(CCI) Water heater	1,250								1,250		1,250
46	(CCI) Womens restroom renovation	3,500	1,282	1,222		2,504	996	(3,500)				
47	(CCI) Mens restroom renovation	3,000	1,099	1,047		2,147	853	(3,000)				

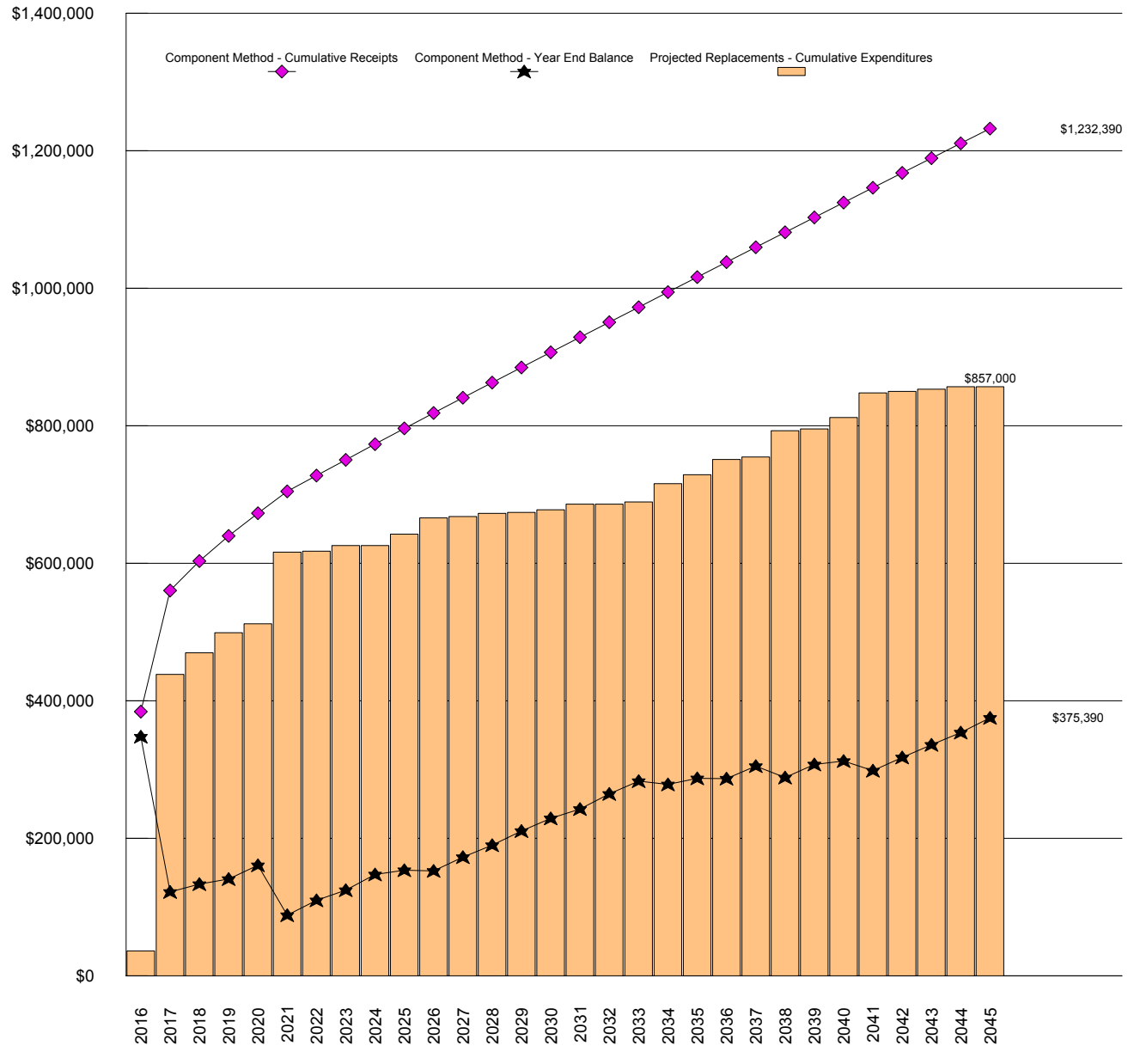
COMPONENT METHOD

$200,546 **COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2016.**

$48.44 Per unit (average), recommended monthly funding of Replacement Reserves

General. The Component Method (also referred to as the Full Funded Method) is a very conservative mathematical model developed by HUD in the early 1980s. Each of the 47 Projected Replacements listed in the Replacement Reserve Inventory is treated as a separate account. The Beginning Balance is allocated to each of the individual accounts, as is all subsequent funding of Replacement Reserves. These funds are "locked" in these individual accounts and are not available to fund other Projected Replacements. The calculation of Recommended Annual Funding of Replacement Reserves is a multi-step process outlined in more detail on Page CM2.

Component Method - Cumulative Receipts and Expenditures Graph



COMPONENT METHOD (cont'd)

- Current Funding Objective. A Current Funding Objective is calculated for each of the Projected Replacements listed in the Replacement Reserve Inventory. Replacement Cost is divided by the Normal Economic Life to determine the nominal annual contribution. The Remaining Economic Life is then subtracted from the Normal Economic Life to calculate the number of years that the nominal annual contribution should have been made. The two values are then multiplied to determine the Current Funding Objective. This is repeated for each of the 47 Projected Replacements. The total, $589,977, 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 ($183,684) by the Current Funding Objective ($589,977). At UCI - General the Funding Percentage is 31.1%

- Allocation of the Beginning Balance. The Beginning Balance is divided among the 47 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 31.1 percent funded, there is $249 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 $200,546, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2016).

  In our fence example, the $249 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 $375. Next year, the deposit remains $375, but in the third year, the fence is replaced and the annual funding adjusts to $100.

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

Component Method Data - Years 1 through 30

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Beginning balance	$183,684									
Recommended annual funding	$200,546	$176,348	$42,772	$36,626	$32,952	$31,755	$22,935	$22,855	$22,895	$22,895
Interest on reserves										
Expenditures	$36,360	$402,055	$31,411	$29,235	$13,030	$104,288	$1,250	$8,201		$16,700
Year end balance	$347,870	$122,162	$133,524	$140,915	$160,836	$88,304	$109,989	$124,643	$147,538	$153,733
Cumulative Expenditures	$36,360	$438,415	$469,826	$499,061	$512,091	$616,379	$617,629	$625,829	$625,829	$642,529
Cumulative Receipts	$384,230	$560,578	$603,350	$639,976	$672,927	$704,682	$727,617	$750,473	$773,367	$796,262

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Recommended annual funding	$22,511	$22,029	$22,029	$22,004	$22,004	$22,004	$21,860	$21,860	$21,860	$21,860
Interest on reserves										
Expenditures	$23,637	$2,000	$4,576	$1,350	$3,720	$8,250		$3,206	$26,635	$13,030
Year end balance	$152,607	$172,636	$190,090	$210,743	$229,027	$242,780	$264,641	$283,295	$278,521	$287,351
Cumulative Expenditures	$666,166	$668,166	$672,742	$674,092	$677,812	$686,062	$686,062	$689,268	$715,903	$728,933
Cumulative Receipts	$818,774	$840,803	$862,832	$884,835	$906,839	$928,842	$950,703	$972,563	$994,424	$1,016,284

Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Recommended annual funding	$21,860	$21,635	$21,635	$21,635	$21,635	$21,635	$21,518	$21,518	$21,518	$21,518
Interest on reserves										
Expenditures	$22,254	$3,555	$38,122	$2,600	$16,700	$35,660	$2,250	$3,206	$3,720	
Year end balance	$286,957	$305,037	$288,550	$307,585	$312,520	$298,495	$317,762	$336,075	$353,872	$375,390
Cumulative Expenditures	$751,187	$754,742	$792,864	$795,464	$812,164	$847,824	$850,074	$853,280	$857,000	$857,000
Cumulative Receipts	$1,038,144	$1,059,779	$1,081,414	$1,103,049	$1,124,683	$1,146,318	$1,167,836	$1,189,354	$1,210,872	$1,232,390

COMPONENT METHOD ACCOUNTING SUMMARY

This UCI - General - Component Method Accounting Summary is an attachment to the UCI - General - Replacement Reserve Study dated Revised May 13, 2016 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2016, 2017, and 2018 Component Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2016, 2017, and 2018. Each of the 47 Projected Replacements listed in the UCI - General Replacement Reserve Inventory has been assigned to one of 4 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 $183,684 Beginning Balance (at the start of the Study Year) and the $419,666 of additional Replacement Reserve funding from 2016 to 2018 (as calculated in the Replacement Reserve Analysis) to each of the 47 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using the Component Method as outlined in the Replacement Reserve Analysis.
  The calculated data includes:
  - Identification and estimated cost of each Projected Replacement schedule in years 2016 through 2018.
  - Allocation of the $183,684 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the $419,666 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2016 through 2018, by the Component Method.

2016 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 47 Projected Replacements included in the UCI - General Replacement Reserve Inventory has been assigned to one of the 4 categories listed in TABLE CM1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of $183,684 as of the first day of the Study Year, January 1, 2016.
- Total reserve funding (including the Beginning Balance) of $384,230 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2016 being accomplished in 2016 at a cost of $36,360.

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

2016 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
PARK AREA (PA)	5 to 60 years	0 to 7 years	$424,657	$122,841	$148,098	$30,000	$240,939
BALL FIELDS	20 to 30 years	1 to 10 years	$3,927	$903	$733		$1,636
COMMUNITY CENTER (CC)	5 to 60 years	0 to 25 years	$224,841	$52,426	$43,086	$2,640	$92,872
COMMUNITY CENTER INTERIORS (CCI)	5 to 40 years	0 to 15 years	$53,120	$7,514	$8,629	$3,720	$12,423

2017 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 47 Projected Replacements included in the UCI - General Replacement Reserve Inventory has been assigned to one of the 4 categories listed in TABLE CM2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $347,870 on January 1, 2017.
- Total reserve funding (including the Beginning Balance) of $560,578 from 2016 through 2017.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2017 being accomplished in 2017 at a cost of $402,055.

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

2017 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
PARK AREA (PA)	5 to 60 years	0 to 59 years	$424,657	$240,939	$127,938	$330,000	$38,877
BALL FIELDS	20 to 30 years	0 to 9 years	$3,927	$1,636	$733	$1,555	$814
COMMUNITY CENTER (CC)	5 to 60 years	0 to 34 years	$224,841	$92,872	$41,343	$64,000	$70,215
COMMUNITY CENTER INTERIORS (CCI)	5 to 40 years	0 to 14 years	$53,120	$12,423	$6,333	$6,500	$12,256

2018 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 47 Projected Replacements included in the UCI - General Replacement Reserve Inventory has been assigned to one of the 4 categories listed in TABLE CM3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $122,162 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $603,350 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2018 being accomplished in 2018 at a cost of $31,411.

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

2018 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2018 BEGINNING BALANCE	2018 RESERVE FUNDING	2018 PROJECTED REPLACEMENTS	2018 END OF YEAR BALANCE
PARK AREA (PA)	5 to 60 years	0 to 59 years	$424,657	$38,877	$18,097	$15,266	$41,708
BALL FIELDS	20 to 30 years	8 to 19 years	$3,927	$814	$251		$1,065
COMMUNITY CENTER (CC)	5 to 60 years	0 to 59 years	$224,841	$70,215	$20,180	$16,145	$74,250
COMMUNITY CENTER INTERIORS (CCI)	5 to 40 years	1 to 29 years	$53,120	$12,256	$4,244		$16,501

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the $183,684 Beginning Balance, as reported by the Association and the $419,666 of Replacement Reserve Funding calculated by the Cash Flow Method from 2016 to 2018, to the 47 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $183,684 on January 1, 2016.
- Replacement Reserves on Deposit totaling $347,870 on January 1, 2017.
- Replacement Reserves on Deposit totaling $122,162 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $603,350 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2016 to 2018 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $469,826.

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

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
	PARK AREA (PA)											
1	(PA) Asphalt pavement, seal coat	1,476		185		185	185		369	185		554
2	(PA) Asphalt pavement, overlay	13,776	3,646	3,377		7,022	3,377		10,399	3,377	(13,776)	
3	(PA) Lot entrance gates	1,490	418	357		775	357		1,133	357	(1,490)	
4	(PA) Wood platform and steps	1,740	253	186		439	186		625	186		811
5	(PA) Park area benches	3,900	809	618		1,428	618		2,046	618		2,664
6	(PA) Picnic tables (33%)	3,255	743	628		1,371	628		1,999	628		2,627
7	(PA) Picnic tables (33%)	3,255	608	441		1,049	441		1,490	441		1,932
8	(PA) Picnic tables (33%)	3,255	473	348		821	348		1,168	348		1,516
9	(PA) Multi-purpose play unit	17,850	4,075	3,444		7,519	3,444		10,963	3,444		14,406
10	(PA) Metal swing set	3,950	902	762		1,664	762		2,426	762		3,188
11	(PA) Arc climber	1,550	322	246		567	246		813	246		1,059
12	(PA) Kiddiepillar tractor climber	3,250	675	515		1,190	515		1,705	515		2,220
13	(PA) Single spring ride	1,970	409	312		721	312		1,033	312		1,346
14	(PA) Double spring ride	1,360	282	216		498	216		713	216		929
15	(PA) Horizonital ladder	1,580	361	305		666	305		970	305		1,275
16	(PA) Bean bag toss	1,000	208	158		366	158		525	158		683
17	(PA) Alum.bulkhead - engineer study	30,000	9,340	20,660	(30,000)		500		500	500		1,000
18	(PA) Alum.bulkhead - living shoreline	330,000	99,318	115,341		214,659	115,341	(330,000)		5,500		5,500
	BALL FIELDS											
19	Baseball backstop - 10' chain link	980	193	72		265	72		336	72		408
20	Baseball backstop - 8' chain link	736	145	54		199	54		253	54		306
21	Baseball backstop - 6' chain link	656	129	48		177	48		225	48		273
22	Wood practice board	1,555	436	560		995	560	(1,555)		78		78
	COMMUNITY CENTER (CC)											
23	(CC) Asphalt pavement, seal coat	1,730		216		216	216		432	216		649
24	(CC) Asphalt pavement, overlay	16,145	4,273	3,957		8,230	3,957		12,187	3,957	(16,145)	
25	(CC) Parking lot and building lighting	2,765	545	202		747	202		949	202		1,151
26	(CC) Asphalt shingle roofing - replace	84,533	20,002	10,755		30,757	10,755		41,512	10,755		52,267
27	(CC) Asphalt shingle roofing - repair	1,000	286	357		643	357	(1,000)		40		40
28	(CC) Aluminum gutters & downspouts	2,700	639	344		982	344		1,326	344		1,669
29	(CC) Cupola	12,000	2,839	1,527		4,366	1,527		5,893	1,527		7,420
30	(CC) Brick and CMU tuckpointing	2,000	498	751		1,249	751	(2,000)		200		200
31	(CC) Painted wood sign and lighting	1,350	252	274		527	274		801	274		1,076
32	(CC) Vinyl siding and soffits - replace	17,199	2,142	717		2,859	717		3,576	717		4,293
33	(CC) Vinyl siding and soffits - repair	1,000	294	353		647	353	(1,000)		29		29
34	(CC) Windows	17,160	1,374	607		1,981	607		2,588	607		3,195
35	(CC) Windows (upper east room)	2,640	822	1,818	(2,640)		75		75	75		151
36	(CC) Exterior metal doors	1,370	149	94		243	94		337	94		431
37	(CC) Exterior wood entrance door	1,250	253	142		395	142		538	142		680
38	(CC) Equestrian ring erosion controls	60,000	18,058	20,971		39,029	20,971	(60,000)		1,000		1,000

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
	COMMUNITY CENTER INTERIORS											
39	(CCI) Hall carpet	3,720	1,158	2,562	(3,720)		266		266	266		531
40	(CCI) Emergency and exit lights	1,500	111	87		198	87		285	87		372
41	(CCI) Electrical service	4,950	925	252		1,176	252		1,428	252		1,679
42	(CCI) Fire suppression allowance	1,800		300		300	300		600	300		900
43	(CCI) HVAC	16,700	1,733	1,497		3,230	1,497		4,727	1,497		6,223
44	(CCI) HVAC	16,700	1,387	1,392		2,779	1,392		4,171	1,392		5,563
45	(CCI) Water heater	1,250	311	235		546	235		781	235		1,015
46	(CCI) Womens restroom renovation	3,500	1,017	1,241		2,259	1,241	(3,500)		117		117
47	(CCI) Mens restroom renovation	3,000	872	1,064		1,936	1,064	(3,000)		100		100

EXECUTIVE SUMMARY

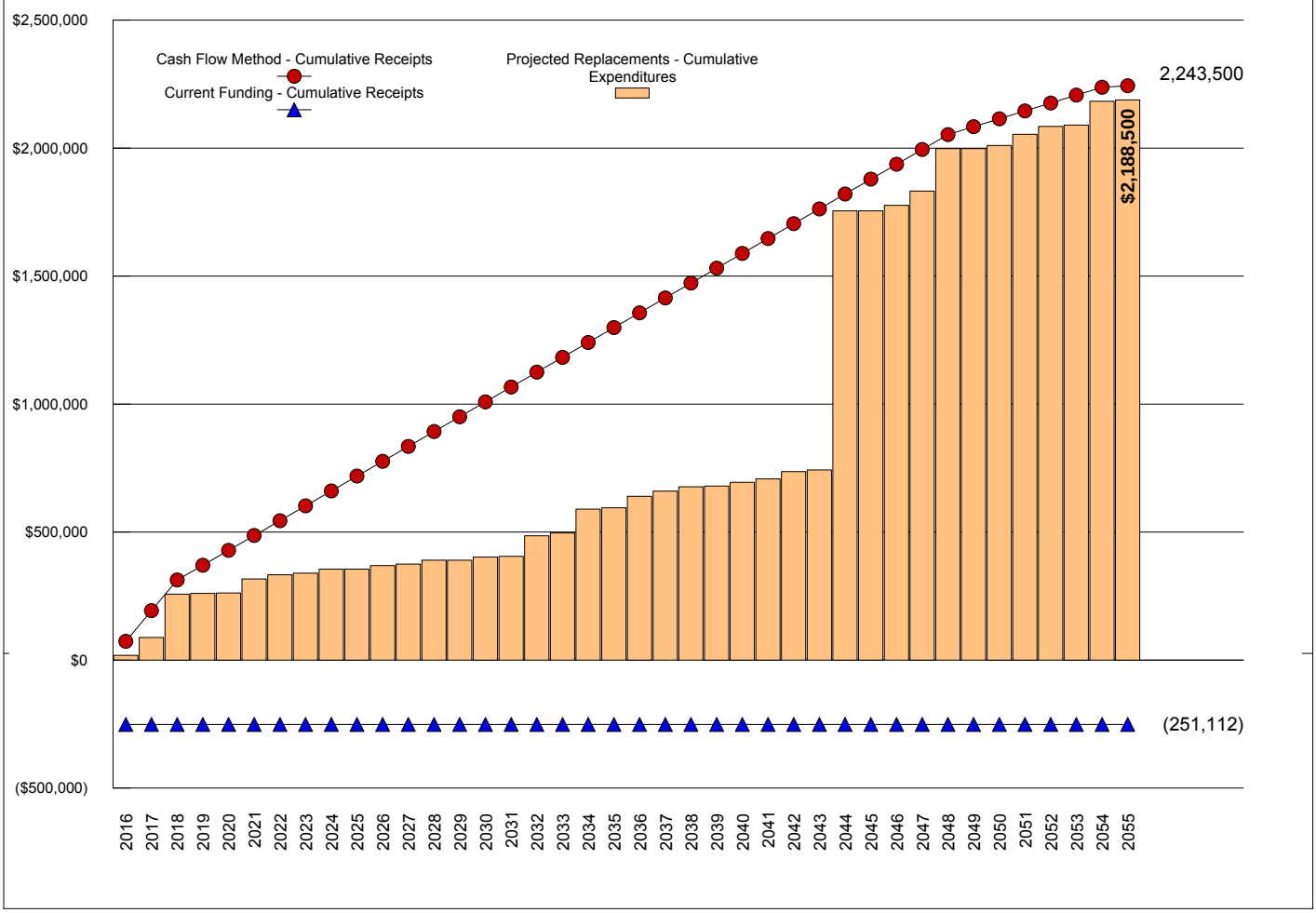
The UCI - Nautical Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 43 Projected Replacements identified in the Replacement Reserve Inventory.

$324,492 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2016**

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

UCI - Nautical reports a that the Association is currently not funding Replacement Reserves.
This Study contains the information necessary for the Association to develop a Funding Plan to address the $2,188,500 of Projected Replacements identified in the Replacement Reserve Inventory over the 40-year Study Period.

#1 - Cumulative Replacement Reserve Funding and Expenditures Graph



The Current Funding Objective as calculated by the Component Method (Fully Funded) is $314,359 making the reserve account -79.9% funded. See the Appendix for more information on this method.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

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

2016 | **STUDY YEAR**

The Association reports that their accounting year begins on January 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on January 1, 2016.

40 Years | **STUDY PERIOD**

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

($251,112) | **STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling $-251,112 at the start of the Study Year.

Level Two | **LEVEL OF SERVICE**

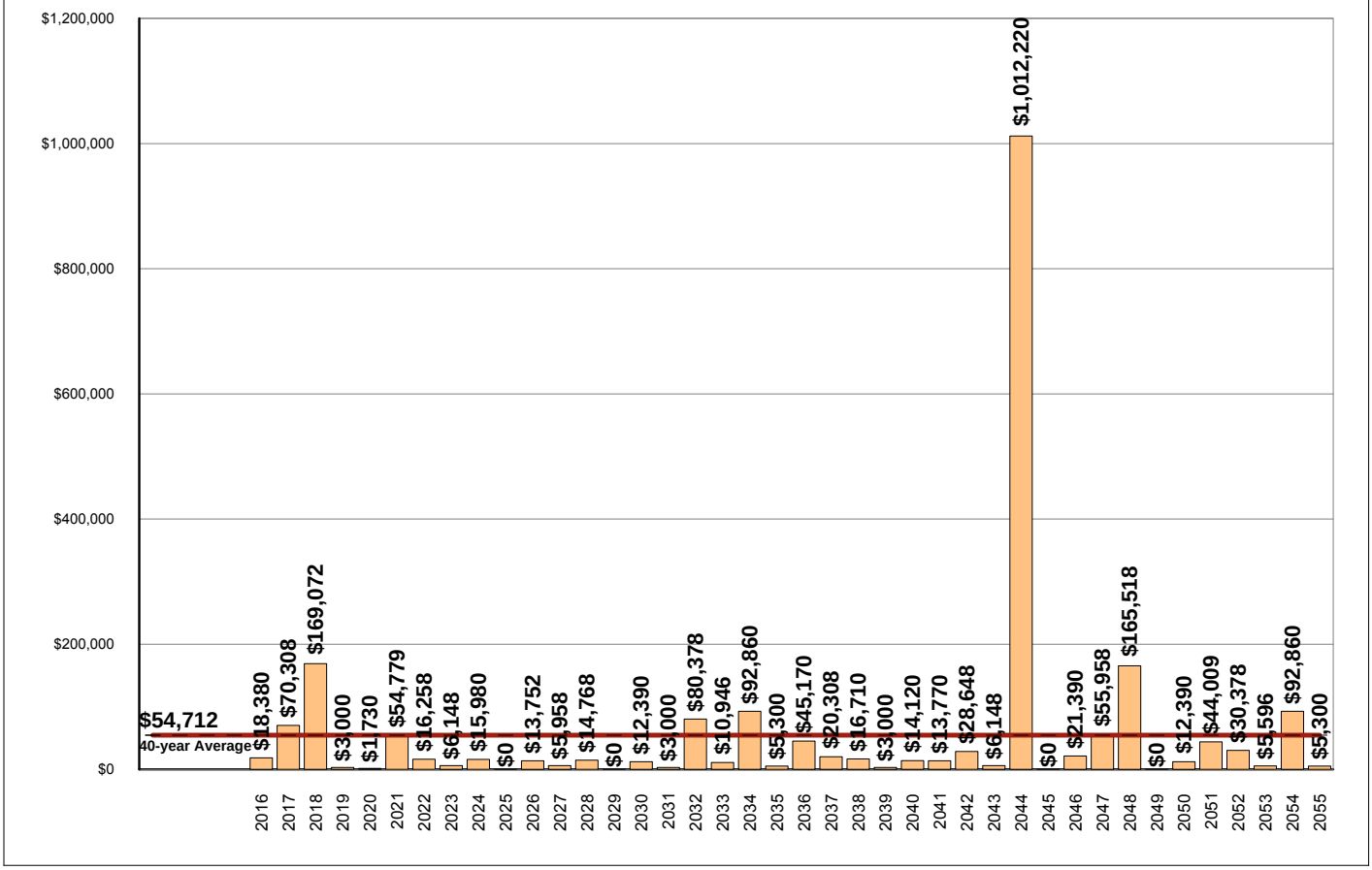
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

$2,188,500 | **REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The UCI - Nautical Replacement Reserve Inventory identifies 43 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be $2,188,500 over the 40-year Study Period. The Projected Replacements are divided into 5 major categories starting on Page B3. Pages B1-B2 provide detailed information on the Replacement Reserve Inventory.

#2 - Annual Expenditures for Projected Replacements Graph

This graph shows annual expenditures for Projected Replacements over the 40-year Study Period. The red line shows the average annual expenditure of $54,712. Section C provides a year by year Calender of these expenditures.



UPDATING

UPDATING OF THE FUNDING PLAN

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

UPDATING OF THE REPLACEMENT RESERVE STUDY

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

ANNUAL EXPENDITURES

The annual expenditures that comprise the $2,188,500 of Projected Expenditures over the 40-year Study Period are detailed in Table 3. A year-by-year listing of the specific projects can be found beginning on Page C2.

#3 - Table of Annual Expenditures - Years 1 through 40

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Projected Replacements	($18,380)	($70,308)	($169,072)	($3,000)	($1,730)	($54,779)	($16,258)	($6,148)	($15,980)	
End of Year Balance	($18,380)	($88,688)	($257,760)	($260,760)	($262,490)	($317,269)	($333,527)	($339,675)	($355,655)	($355,655)
Cumulative Expenditures	($18,380)	($88,688)	($257,760)	($260,760)	($262,490)	($317,269)	($333,527)	($339,675)	($355,655)	($355,655)

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Projected Replacements	($13,752)	($5,958)	($14,768)		($12,390)	($3,000)	($80,378)	($10,946)	($92,860)	($5,300)
End of Year Balance	($369,407)	($375,365)	($390,133)	($390,133)	($402,523)	($405,523)	($485,901)	($496,847)	($589,707)	($595,007)
Cumulative Expenditures	($369,407)	($375,365)	($390,133)	($390,133)	($402,523)	($405,523)	($485,901)	($496,847)	($589,707)	($595,007)

Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Projected Replacements	($45,170)	($20,308)	($16,710)	($3,000)	($14,120)	($13,770)	($28,648)	($6,148)	($1,012,220)	
End of Year Balance	($640,177)	($660,485)	($677,195)	($680,195)	($694,315)	($708,085)	($736,733)	($742,881)	($1,755,101)	($1,755,101)
Cumulative Expenditures	($640,177)	($660,485)	($677,195)	($680,195)	($694,315)	($708,085)	($736,733)	($742,881)	($1,755,101)	($1,755,101)

Year	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055
Projected Replacements	($21,390)	($55,958)	($165,518)		($12,390)	($44,009)	($30,378)	($5,596)	($92,860)	($5,300)
End of Year Balance	($1,776,491)	($1,832,449)	($1,997,967)	($1,997,967)	($2,010,357)	($2,054,366)	($2,084,744)	($2,090,340)	($2,183,200)	($2,188,500)
Cumulative Expenditures	($1,776,491)	($1,832,449)	($1,997,967)	($1,997,967)	($2,010,357)	($2,054,366)	($2,084,744)	($2,090,340)	($2,183,200)	($2,188,500)

Table #3 shows the annual costs for Projected Replacements and the cumulative annual expenditures for the Projected Replacements. Table #3 also shows the Starting Balance and Current Annual Funding if reported by Association. When this information is provided, Table #3 will calculate the consequences of continuing to fund Replacement Reserves at current levels over the 40-year Study Period.

This information is for use by the Association for the development of a Funding Plan. The Funding Plan is a critical planning tool if the Association is to provide timely and adequate funding for the $2,188,500 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

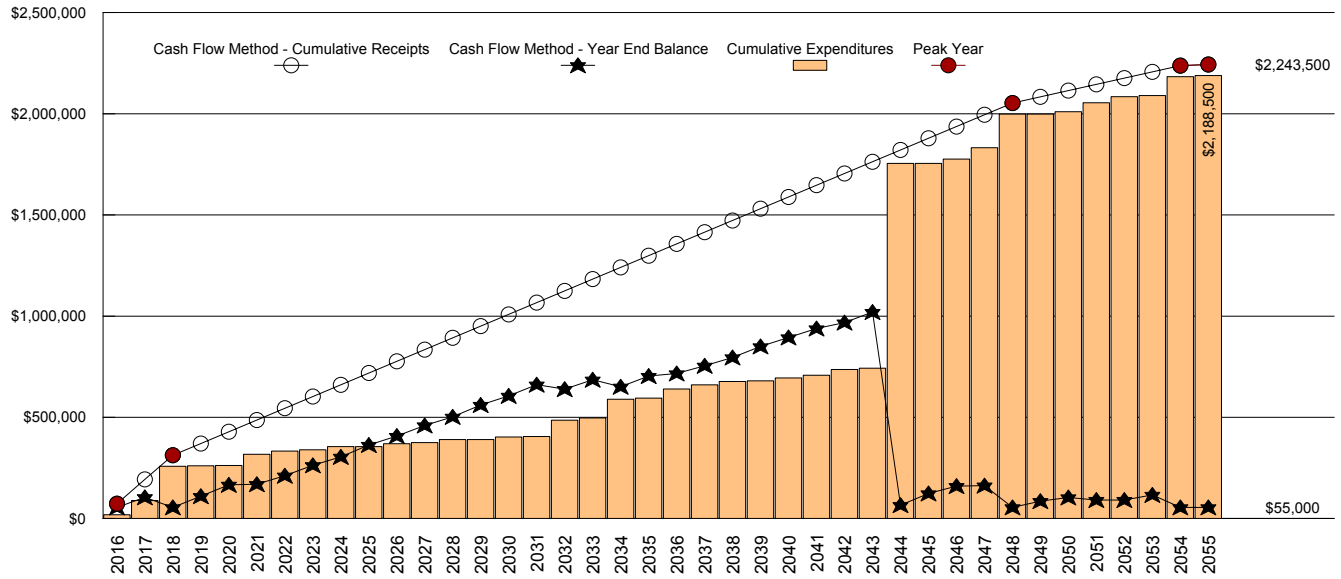
CASH FLOW METHOD FUNDING

$324,492 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2016**

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

- Peak Years. The First Peak Year occurs in 2016 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of $18,380 of replacements in the Study Year, 2016. Recommended funding declines from $324,492 in 2016 to $119,690 in 2017. Peak Years are identified in Chart 4 and Table 5.
- Minimum Balance. The calculations assume a Minimum Balance of $55,000 in Replacement Reserves. This is approx. 12 months of average expenditures based on the $54,712, 40-year average annual expenditure.
- Cash Flow Method Study Period. Cash Flow Method calculates funding for $2,188,500 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2055 and in 2055, the end of year balance will always be the Minimum Balance.

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



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

Year	1st Peak - 2016	2017	2nd Peak - 2018	2019	2020	2021	2022	2023	2024	2025
Starting Balance	($251,112)									
Projected Replacements	($18,380)	($70,308)	($169,072)	($3,000)	($1,730)	($54,779)	($16,258)	($6,148)	($15,980)	
Annual Deposit	$324,492	$119,690	$119,690	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007
End of Year Balance	$55,000	$104,382	$55,000	$110,007	$166,284	$169,512	$211,261	$263,120	$305,147	$363,153
Cumulative Expenditures	$18,380	$88,688	$257,760	$260,760	$262,490	$317,269	$333,527	$339,675	$355,655	$355,655
Cumulative Receipts	$73,380	$193,070	$312,760	$370,767	$428,774	$486,781	$544,788	$602,794	$660,801	$718,808

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Projected Replacements	($13,752)	($5,958)	($14,768)		($12,390)	($3,000)	($80,378)	($10,946)	($92,860)	($5,300)
Annual Deposit	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007
End of Year Balance	$407,408	$459,457	$502,696	$560,703	$606,320	$661,327	$638,956	$686,017	$651,163	$703,870
Cumulative Expenditures	($369,407)	($375,365)	($390,133)	($390,133)	($402,523)	($405,523)	($485,901)	($496,847)	($589,707)	($595,007)
Cumulative Receipts	$776,815	$834,822	$892,829	$950,836	$1,008,843	$1,066,850	$1,124,857	$1,182,863	$1,240,870	$1,298,877

Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Projected Replacements	($45,170)	($20,308)	($16,710)	($3,000)	($14,120)	($13,770)	($28,648)	($6,148)	($1,012,220)	
Annual Deposit	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007	$58,007
End of Year Balance	$716,707	$754,406	$795,703	$850,710	$894,597	$938,834	$968,193	$1,020,052	$65,838	$123,845
Cumulative Expenditures	($640,177)	($660,485)	($677,195)	($680,195)	($694,315)	($708,085)	($736,733)	($742,881)	($1,755,101)	($1,755,101)
Cumulative Receipts	$1,356,884	$1,414,891	$1,472,898	$1,530,905	$1,588,912	$1,646,919	$1,704,926	$1,762,932	$1,820,939	$1,878,946

Year	2046	2047	3rd Peak - 2048	2049	2050	2051	2052	2053	4th Peak - 2054	5th Peak - 2055
Projected Replacements	($21,390)	($55,958)	($165,518)		($12,390)	($44,009)	($30,378)	($5,596)	($92,860)	($5,300)
Annual Deposit	$58,007	$58,007	$58,007	$30,872	$30,872	$30,872	$30,872	$30,872	$30,872	$5,300
End of Year Balance	$160,462	$162,511	$55,000	$85,872	$104,354	$91,218	$91,712	$116,988	$55,000	$55,000
Cumulative Expenditures	($1,776,491)	($1,832,449)	($1,997,967)	($1,997,967)	($2,010,357)	($2,054,366)	($2,084,744)	($2,090,340)	($2,183,200)	($2,188,500)
Cumulative Receipts	$1,936,953	$1,994,960	$2,052,967	$2,083,839	$2,114,711	$2,145,583	$2,176,455	$2,207,328	$2,238,200	$2,243,500

INFLATION ADJUSTED FUNDING

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

$324,492 **2016 - CASH FLOW METHOD RECOMMENDED FUNDING**

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

$126,576 **2017 - INFLATION ADJUSTED FUNDING**

A new analysis calculates 2017 funding based on three assumptions;

- Replacement Reserves on Deposit totaling $55,000 on January 1, 2017.
- All 2016 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than $18,380.
- Construction Cost Inflation of 4.50 percent in 2016.

The $126,576 inflation adjusted funding in 2017 is a 5.75 percent increase over the non-inflation adjusted 2017 funding of $119,690.

$136,527 **2018 - INFLATION ADJUSTED FUNDING**

A new analysis calculates 2018 funding based on three assumptions;

- Replacement Reserves on Deposit totaling $108,104 on January 1, 2018.
- All 2017 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than $73,472.
- Construction Cost Inflation of 4.50 percent in 2017.

The $136,527 inflation adjusted funding in 2018 is a 14.07 percent increase over the non-inflation adjusted 2018 funding of $119,690.

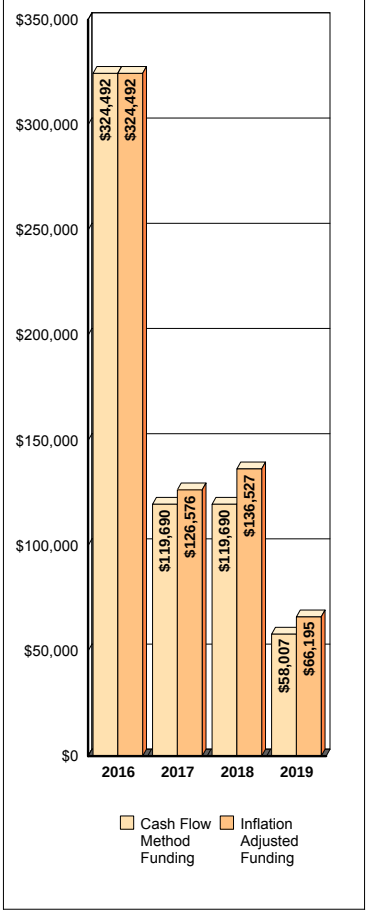
$66,195 **2019 - INFLATION ADJUSTED FUNDING**

A new analysis calculates 2019 funding based on three assumptions;

- Replacement Reserves on Deposit totaling $60,000 on January 1, 2019.
- All 2018 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than $184,631.
- Construction Cost Inflation of 4.50 percent in 2018.

The $66,195 inflation adjusted funding in 2019 is a 14.12 percent increase over the non-inflation adjusted funding of $58,007.

#6 - Inflation Adjusted Funding



YEAR FIVE & BEYOND

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

INFLATION ADJUSTMENT

Prior to approving a budget based upon the 2017, 2018 and 2019 inflation adjusted funding calculations above, the 4.50 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percent), contact Miller Dodson + Associates prior to using the Inflation Adjusted Funding.

INTEREST ON RESERVES

The recommended funding calculations do not account for interest earned on Replacement Reserves.
In 2016, based on a 1.00 percent interest rate, we estimate the Association may earn $-981 on an average balance of $-98,056, $816 on an average balance of $81,552 in 2017, and $841 on $84,052 in 2018. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2016 funding from $324,492 to $325,473 (a -0.30 percent reduction), $126,576 to $125,761 in 2017 (a 0.64 percent reduction), and $136,527 to $135,686 in 2018 (a 0.62 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- The Cash Flow Method calculates the minimum annual funding necessary to prevent Replacement Reserves from dropping below the Minimum Balance. Failure to fund at least the recommended levels may result in funding not being available for the Projected Replacements listed in the Replacement Reserve Inventory.
- The accuracy of the Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 43 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B1.

REPLACEMENT RESERVE INVENTORY
GENERAL INFORMATION

UCI - Nautical - Replacement Reserve Inventory identifies 48 items. Two types of items are identified, Projected Replacements and Excluded Items:

- PROJECTED REPLACEMENTS. 43 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 $1,472,887. Replacements totaling $2,188,500 are scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

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

- EXCLUDED ITEMS. 5 of the items are Excluded Items, and expenditures for these items are NOT scheduled for funding from Replacement Reserves. The accuracy of the calculations made in the Replacement Reserve Analysis is dependent on expenditures NOT being made for Excluded Items. The Excluded Items are listed in the Replacement Reserve Inventory to identify specific items and categories of items that are not to be funded from Replacement Reserves. There are multiple categories of items that are typically excluded from funding by Replacement Reserves, including but not limited to:

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

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

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

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

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

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

- CATEGORIES. The 48 items included in the UCI - Nautical Replacement Reserve Inventory are divided into 5 major categories. Each category is printed on a separate page, Pages B3 to B7.

- LEVEL OF SERVICE. This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level Two - Update (with site visit and on-site review), as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

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

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- INVENTORY DATA. Each of the 43 Projected Replacements listed in the Replacement Reserve Inventory includes the following data:

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

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

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

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

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

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

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

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

  Each of the 5 Excluded Items includes the Item Description, Units, and Number of Units. Many of the Excluded Items are listed as a 'Lump Sum' with a quantity of 1. For the Excluded Items, this indicates that all of the items identified by the 'Item Description' are excluded from funding by Replacement Reserves.

- REVIEW OF EXPENDITURES. This Replacement Reserve Study should be reviewed by an accounting professional representing the Association prior to implementation.

- PARTIAL FUNDING. Items may have been included in the Replacement Reserve Inventory at less than 100 percent of their full quantity and/or replacement cost. This is done on items that will never be replaced in their entirety, but which may require periodic replacements over an extended period of time. The assumptions that provide the basis for any partial funding are noted in the Comments section.

- REMAINING ECONOMIC LIFE GREATER THAN 40 YEARS. The calculations do not include funding for initial replacements beyond 40 years. These replacements are included in this Study for tracking and evaluation. They should be included for funding in future Studies, when they enter the 40-year window.

DOCK I
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
1	Dock I asphalt pavement, seal coat	sf	8,100	$0.18	5	1	$1,458
2	Dock I asphalt pavement, overlay	sf	8,100	$1.70	20	5	$13,770
3	Dock I concrete walk and terraced steps	sf	106	$12.85	60	10	$1,362
4	Dock I wood platform, ramp & paver walk	ls	1	$1,250.00	15	1	$1,250
5	Dock I concrete boat ramp - 14" strip area	sf	228	$24.60	30	5	$5,609
6	Dock I concrete boat ramp - solid concrete	sf	116	$37.50	30	5	$4,350
7	Dock I boat ramp pier	ls	1	$9,000.00	30	none	$9,000
8	Dock I main pier, branch and finger incl.	ls	1	$82,500.00	30	2	$82,500
9	Dock I mooring piers	ea	29	$875.00	30	2	$25,375
10	Dock I floating platforms - refurbish	sf	1,300	$37.50	15	1	$48,750
11	Dock I stone bulkheads (25%)	sf	138	$225.00	15	5	$31,050
12	Dock I water supply	ls	1	$2,200.00	45	2	$2,200
13	Dock I electrical service	ls	1	$4,500.00	45	2	$4,500
14	Dock I security camera system - install	ls	1	$2,500.00	60	none	$2,500
15	Dock I security camera recorder & box	ls	1	$1,200.00	20	19	$1,200
16	Dock I security camera & cable - allow.	ls	1	$350.00	4	4	$350
17	Dock 1 Canoe rack replace, allowance	ls	1	$1,250.00	10	7	$1,250
						DOCK I - Replacement Costs - Subtotal	$236,474

DOCK I
COMMENTS

- We have assumed that the Association will replace the asphalt pavement by the installation of a 2 inch thick overlay.
- Dock I electrical service includes panel box enclosure.
- Dock I gravel parking replenishment - UCI has opted to replace on an as-needed basis from operating funds.
- Dock I lot and ramp gates - UCI has opted to replace on an as-needed basis from operating funds.
- Dock I wood split rail fencing - UCI has opted to replace on an as-needed basis from operating funds.

DOCK II
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
18	Dock II asphalt entrance drive (orginal)	sf	2,160	$1.70	20	2	$3,672
19	Dock II asphalt entrance drive (new)	sf	1,440	$1.70	20	17	$2,448
20	Dock II asphalt entry drive seal coat	sf	3,600	$0.18	5	7	$648
21	Dock II gravel parking refurbishment	sf	15,000	$0.95	10	8	$14,250
22	Dock II storage shed	ea	1	$5,350.00	25	17	$5,350
23	Dock II 76 pier structure & pilings	ea	1	$834,600.00	30	28	$834,600
24	Dock II decking	sf	8,850	$14.00	30	28	$123,900
25	Dock II decking allowance (10%)	sf	885	$14.00	2	10	$12,390
26	Dock II ladders	ea	8	$360.00	20	18	$2,880
27	Dock II electrical service	ls	1	$49,500.00	50	48	$49,500
28	Dock II electrical power pedestals	ea	44	$985.00	20	18	$43,340
29	Dock II potable water	ls	1	$9,750.00	30	28	$9,750
30	Dock II fire pipe and risers	ls	1	$15,600.00	30	28	$15,600
31	Dock II sewage pumpout	ls	1	$20,000.00	20	18	$20,000
32	Dock II security camera system - install	ls	1	$6,880.00	60	none	$6,880
33	Dock II security camera recorder & box	ls	1	$1,100.00	20	19	$1,100
34	Dock II security camera & cable - allow.	ls	1	$1,380.00	4	4	$1,380
35	Dock II Canoe rack replace, allowance	ls	1	$1,250.00	10	7	$1,250
36	Dock II misc. replacement allowance	ls	1	$3,000.00	4	3	$3,000
				DOCK II - Replacement Costs - Subtotal			$1,151,938

DOCK II
COMMENTS

- Dock II - decking allowance (10%) - we have assumed that approximately 10% of the 2 X 8 decking will require replacement every two years after ten years of use.
- Dock II misc. replacement allowance - is provided to replace small items such as power pedestals, GFCI unit, ladders, etc. that may be fail or become damaged.
- Gravel parking area refurbishment includes only the area currently surfaced with gravel.
- Dock II road guardrail post and cable - UCI has opted to replace on an as-needed basis from operating funds.
- Dock II entrance gates - UCI has opted to replace on an as-needed basis from operating funds.
- Dock II miscellaneous furninishing - UCI has opted to replace on an as-needed basis from operating funds.

DOCK III
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
37	Dock III pathway refurbishment	ls	1	$1,500.00	10	1	$1,500
38	Dock III pier and docks	ls	1	$38,500.00	30	2	$38,500
39	Dock III mooring piles	ea	5	$875.00	30	2	$4,375
40	Dock III boat lift	ea	1	$17,350.00	20	1	$17,350
41	Dock III electrical service	ea	1	$5,450.00	40	2	$5,450
42	Dock III water supply	ea	1	$2,500.00	40	2	$2,500
43	Dock III riprap wave breakers (10%)	ls	1	$14,800.00	10	6	$14,800

DOCK III - Replacement Costs - Subtotal $84,475

DOCK III
COMMENTS

VALUATION EXCLUSIONS

EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	See General Study for all exclusions	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.

GOVERNMENT EXCLUSIONS
EXCLUDED ITEMS

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

GOVERNMENT 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 , and adjacent properties.

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

Intentionally Left Blank

PROJECTED ANNUAL REPLACEMENTS
GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 43 Projected Replacements in the UCI - Nautical Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C2.

REPLACEMENT RESERVE ANALYSIS AND INVENTORY
POLICIES, PROCEDURES, AND ADMINISTRATION

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

PROJECTED REPLACEMENTS - YEARS ONE TO FIFTEEN

Item	2016 - STUDY YEAR	$
7	Dock I boat ramp pier	$9,000
14	Dock I security camera syste	$2,500
32	Dock II security camera syst	$6,880
	Total Scheduled Replacements	$18,380

Item	2017 - YEAR 2	$
1	Dock I asphalt pavement, se	$1,458
4	Dock I wood platform, ramp	$1,250
10	Dock I floating platforms - re	$48,750
37	Dock III pathway refurbishm	$1,500
40	Dock III boat lift	$17,350
	Total Scheduled Replacements	$70,308

Item	2018 - YEAR 3	$
8	Dock I main pier, branch and	$82,500
9	Dock I mooring piers	$25,375
12	Dock I water supply	$2,200
13	Dock I electrical service	$4,500
18	Dock II asphalt entrance driv	$3,672
38	Dock III pier and docks	$38,500
39	Dock III mooring piles	$4,375
41	Dock III electrical service	$5,450
42	Dock III water supply	$2,500
	Total Scheduled Replacements	$169,072

Item	2019 - YEAR 4	$
36	Dock II misc. replacement al	$3,000
	Total Scheduled Replacements	$3,000

Item	2020 - YEAR 5	$
16	Dock I security camera & ca	$350
34	Dock II security camera & ca	$1,380
	Total Scheduled Replacements	$1,730

Item	2021 - YEAR 6	$
2	Dock I asphalt pavement, ov	$13,770
5	Dock I concrete boat ramp -	$5,609
6	Dock I concrete boat ramp -	$4,350
11	Dock I stone bulkheads (25%	$31,050
	Total Scheduled Replacements	$54,779

Item	2022 - YEAR 7	$
1	Dock I asphalt pavement, se	$1,458
43	Dock III riprap wave breaker	$14,800
	Total Scheduled Replacements	$16,258

Item	2023 - YEAR 8	$
17	Dock 1 Canoe rack replace,	$1,250
20	Dock II asphalt entry drive s	$648
35	Dock II Canoe rack replace,	$1,250
36	Dock II misc. replacement al	$3,000
	Total Scheduled Replacements	$6,148

Item	2024 - YEAR 9	$
16	Dock I security camera & ca	$350
21	Dock II gravel parking refurb	$14,250
34	Dock II security camera & ca	$1,380
	Total Scheduled Replacements	$15,980

Item	2025 - YEAR 10	$
	No Scheduled Replacements	

Item	2026 - YEAR 11	$
3	Dock I concrete walk and ter	$1,362
25	Dock II decking allowance (1	$12,390
	Total Scheduled Replacements	$13,752

Item	2027 - YEAR 12	$
1	Dock I asphalt pavement, se	$1,458
36	Dock II misc. replacement al	$3,000
37	Dock III pathway refurbishm	$1,500
	Total Scheduled Replacements	$5,958

Item	2028 - YEAR 13	$
16	Dock I security camera & ca	$350
20	Dock II asphalt entry drive s	$648
25	Dock II decking allowance (1	$12,390
34	Dock II security camera & ca	$1,380
	Total Scheduled Replacements	$14,768

Item	2029 - YEAR 14	$
	No Scheduled Replacements	

Item	2030 - YEAR 15	$
25	Dock II decking allowance (1	$12,390
	Total Scheduled Replacements	$12,390

PROJECTED REPLACEMENTS - YEARS SIXTEEN TO THIRTY

Item	2031 - YEAR 16	$
36	Dock II misc. replacement al	$3,000
	Total Scheduled Replacements	$3,000

Item	2032 - YEAR 17	$
1	Dock I asphalt pavement, se	$1,458
4	Dock I wood platform, ramp	$1,250
10	Dock I floating platforms - re	$48,750
16	Dock I security camera & ca	$350
25	Dock II decking allowance (1	$12,390
34	Dock II security camera & ca	$1,380
43	Dock III riprap wave breaker	$14,800
	Total Scheduled Replacements	$80,378

Item	2033 - YEAR 18	$
17	Dock 1 Canoe rack replace,	$1,250
19	Dock II asphalt entrance driv	$2,448
20	Dock II asphalt entry drive s	$648
22	Dock II storage shed	$5,350
35	Dock II Canoe rack replace,	$1,250
	Total Scheduled Replacements	$10,946

Item	2034 - YEAR 19	$
21	Dock II gravel parking refurb	$14,250
25	Dock II decking allowance (1	$12,390
26	Dock II ladders	$2,880
28	Dock II electrical power ped	$43,340
31	Dock II sewage pumpout	$20,000
	Total Scheduled Replacements	$92,860

Item	2035 - YEAR 20	$
15	Dock I security camera reco	$1,200
33	Dock II security camera recc	$1,100
36	Dock II misc. replacement al	$3,000
	Total Scheduled Replacements	$5,300

Item	2036 - YEAR 21	$
11	Dock I stone bulkheads (25%	$31,050
16	Dock I security camera & ca	$350
25	Dock II decking allowance (1	$12,390
34	Dock II security camera & ca	$1,380
	Total Scheduled Replacements	$45,170

Item	2037 - YEAR 22	$
1	Dock I asphalt pavement, se	$1,458
37	Dock III pathway refurbishm	$1,500
40	Dock III boat lift	$17,350
	Total Scheduled Replacements	$20,308

Item	2038 - YEAR 23	$
18	Dock II asphalt entrance driv	$3,672
20	Dock II asphalt entry drive s	$648
25	Dock II decking allowance (1	$12,390
	Total Scheduled Replacements	$16,710

Item	2039 - YEAR 24	$
36	Dock II misc. replacement al	$3,000
	Total Scheduled Replacements	$3,000

Item	2040 - YEAR 25	$
16	Dock I security camera & ca	$350
25	Dock II decking allowance (1	$12,390
34	Dock II security camera & ca	$1,380
	Total Scheduled Replacements	$14,120

Item	2041 - YEAR 26	$
2	Dock I asphalt pavement, ov	$13,770
	Total Scheduled Replacements	$13,770

Item	2042 - YEAR 27	$
1	Dock I asphalt pavement, se	$1,458
25	Dock II decking allowance (1	$12,390
43	Dock III riprap wave breaker	$14,800
	Total Scheduled Replacements	$28,648

Item	2043 - YEAR 28	$
17	Dock 1 Canoe rack replace,	$1,250
20	Dock II asphalt entry drive s	$648
35	Dock II Canoe rack replace,	$1,250
36	Dock II misc. replacement al	$3,000
	Total Scheduled Replacements	$6,148

Item	2044 - YEAR 29	$
16	Dock I security camera & ca	$350
21	Dock II gravel parking refurb	$14,250
23	Dock II 76 pier structure & p	$834,600
24	Dock II decking	$123,900
25	Dock II decking allowance (1	$12,390
29	Dock II potable water	$9,750
30	Dock II fire pipe and risers	$15,600
34	Dock II security camera & ca	$1,380
	Total Scheduled Replacements	$1,012,220

Item	2045 - YEAR 30	$
	No Scheduled Replacements	

PROJECTED REPLACEMENTS - YEARS THIRTY-ONE TO FORTY-FIVE

Item	2046 - YEAR 31	$
7	Dock I boat ramp pier	$9,000
25	Dock II decking allowance (1	$12,390
	Total Scheduled Replacements	$21,390

Item	2047 - YEAR 32	$
1	Dock I asphalt pavement, se	$1,458
4	Dock I wood platform, ramp	$1,250
10	Dock I floating platforms - re	$48,750
36	Dock II misc. replacement al	$3,000
37	Dock III pathway refurbishm	$1,500
	Total Scheduled Replacements	$55,958

Item	2048 - YEAR 33	$
8	Dock I main pier, branch an	$82,500
9	Dock I mooring piers	$25,375
16	Dock I security camera & ca	$350
20	Dock II asphalt entry drive s	$648
25	Dock II decking allowance (1	$12,390
34	Dock II security camera & ca	$1,380
38	Dock III pier and docks	$38,500
39	Dock III mooring piles	$4,375
	Total Scheduled Replacements	$165,518

Item	2049 - YEAR 34	$
	No Scheduled Replacements	

Item	2050 - YEAR 35	$
25	Dock II decking allowance (1	$12,390
	Total Scheduled Replacements	$12,390

Item	2051 - YEAR 36	$
5	Dock I concrete boat ramp -	$5,609
6	Dock I concrete boat ramp -	$4,350
11	Dock I stone bulkheads (25'	$31,050
36	Dock II misc. replacement al	$3,000
	Total Scheduled Replacements	$44,009

Item	2052 - YEAR 37	$
1	Dock I asphalt pavement, se	$1,458
16	Dock I security camera & ca	$350
25	Dock II decking allowance (1	$12,390
34	Dock II security camera & ca	$1,380
43	Dock III riprap wave breaker	$14,800
	Total Scheduled Replacements	$30,378

Item	2053 - YEAR 38	$
17	Dock 1 Canoe rack replace,	$1,250
19	Dock II asphalt entrance driv	$2,448
20	Dock II asphalt entry drive s	$648
35	Dock II Canoe rack replace,	$1,250
	Total Scheduled Replacements	$5,596

Item	2054 - YEAR 39	$
21	Dock II gravel parking refurb	$14,250
25	Dock II decking allowance (1	$12,390
26	Dock II ladders	$2,880
28	Dock II electrical power ped	$43,340
31	Dock II sewage pumpout	$20,000
	Total Scheduled Replacements	$92,860

Item	2055 - YEAR 40	$
15	Dock I security camera reco	$1,200
33	Dock II security camera recc	$1,100
36	Dock II misc. replacement al	$3,000
	Total Scheduled Replacements	$5,300

Item	2056 (beyond Study Period)	$
16	Dock I security camera & ca	$350
25	Dock II decking allowance (1	$12,390
34	Dock II security camera & ca	$1,380
	Total Scheduled Replacements	$14,120

Item	2057 (beyond Study Period)	$
1	Dock I asphalt pavement, se	$1,458
37	Dock III pathway refurbishm	$1,500
40	Dock III boat lift	$17,350
	Total Scheduled Replacements	$20,308

Item	2058 (beyond Study Period)	$
18	Dock II asphalt entrance driv	$3,672
20	Dock II asphalt entry drive s	$648
22	Dock II storage shed	$5,350
25	Dock II decking allowance (1	$12,390
41	Dock III electrical service	$5,450
42	Dock III water supply	$2,500
	Total Scheduled Replacements	$30,010

Item	2059 (beyond Study Period)	$
36	Dock II misc. replacement al	$3,000
	Total Scheduled Replacements	$3,000

Item	2060 (beyond Study Period)	$
16	Dock I security camera & ca	$350
25	Dock II decking allowance (1	$12,390
34	Dock II security camera & ca	$1,380
	Total Scheduled Replacements	$14,120

CASH FLOW METHOD ACCOUNTING SUMMARY

This UCI - Nautical - Cash Flow Method Accounting Summary is an attachment to the UCI - Nautical - Replacement Reserve Study dated Revised May 13, 2016 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2016, 2017, and 2018 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- CASH FLOW METHOD CATEGORY FUNDING REPORT, 2016, 2017, and 2018. Each of the 43 Projected Replacements listed in the UCI - Nautical Replacement Reserve Inventory has been assigned to one of 3 categories. The following information is summarized by category in each report:
  - Normal Economic Life and Remaining Economic Life of the Projected Replacements.
  - Cost of all Scheduled Replacements in each category.
  - Replacement Reserves on Deposit allocated to the category at the beginning and end of the report period.
  - Cost of Projected Replacements in the report period.
  - Recommended Replacement Reserve Funding allocated to the category during the report period as calculated by the Cash Flow Method.

- THREE-YEAR REPLACEMENT FUNDING REPORT. This report details the allocation of the $-251,112 Beginning Balance (at the start of the Study Year) and the $563,872 of additional Replacement Reserve Funding in 2016 through 2018 (as calculated in the Replacement Reserve Analysis) to each of the 43 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and discussed below. The calculated data includes:
  - Identification and estimated cost of each Projected Replacement scheduled in years 2016 through 2018.
  - Allocation of the $-251,112 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the $563,872 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2016 through 2018, by Chronological Allocation.

- CHRONOLOGICAL ALLOCATION. Chronological Allocation assigns Replacement Reserves to Projected Replacements on a "first come, first serve" basis in keeping with the basic philosophy of the Cash Flow Method. The Chronological Allocation methodology is outlined below.
  - The first step is the allocation of the $-251,112 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 UCI - Nautical the Beginning Balance funds 0.0% of Scheduled Replacements in the Study Year.
  - The next step is the allocation of the $324,492 of 2016 Cash Flow Method Reserve Funding calculated in the Replacement Reserve Analysis. These funds are first allocated to fund the partially funded Projected Replacements and then to subsequent years in chronological order as outlined above.

    At UCI - Nautical the Beginning Balance and the 2016 Replacement Reserve Funding, funds replacements through 2016 and partial funds (78.2%) replacements in 2017.
  - Allocations of the 2017 and 2018 Reserve Funding are done using the same methodology.
  - The Three-Year Replacement Funding Report details component by component allocations made by Chronological Allocation.

2016 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 43 Projected Replacements included in the UCI - Nautical Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CF1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of $-251,112 as of the first day of the Study Year, January 1, 2016.
- Total reserve funding (including the Beginning Balance) of $73,380 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2016 being accomplished in 2016 at a cost of $18,380.

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

2016 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
DOCK I	4 to 60 years	0 to 19 years	$236,474		$51,754	($11,500)	$40,254
DOCK II	2 to 60 years	0 to 48 years	$1,151,938		$6,880	($6,880)	
DOCK III	10 to 40 years	1 to 6 years	$84,475		$14,746		$14,746

2017 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 43 Projected Replacements included in the UCI - Nautical Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CF2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $55,000 on January 1, 2017.
- Total reserve funding (including the Beginning Balance) of $193,070 from 2016 through 2017.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2017 being accomplished in 2017 at a cost of $70,308.

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

2017 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
DOCK I	4 to 60 years	0 to 59 years	$236,474	$40,254	$81,940	($51,458)	$70,737
DOCK II	2 to 60 years	1 to 59 years	$1,151,938		$2,267		$2,267
DOCK III	10 to 40 years	0 to 5 years	$84,475	$14,746	$35,483	($18,850)	$31,378

2018 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 43 Projected Replacements included in the UCI - Nautical Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CF3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $104,382 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $312,760 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2018 being accomplished in 2018 at a cost of $169,072.

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

2018 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2018 BEGINNING BALANCE	2018 RESERVE FUNDING	2018 PROJECTED REPLACEMENTS	2018 END OF YEAR BALANCE
DOCK I	4 to 60 years	0 to 58 years	$236,474	$70,737	$94,458	($114,575)	$50,620
DOCK II	2 to 60 years	0 to 58 years	$1,151,938	$2,267	$5,785	($3,672)	$4,380
DOCK III	10 to 40 years	0 to 19 years	$84,475	$31,378	$19,447	($50,825)	

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF4 below details the allocation of the $-251,112 Beginning Balance, as reported by the Association and the $563,872 of Replacement Reserve Funding calculated by the Cash Flow Method from 2016 to 2018, to the 43 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $-251,112 on January 1, 2016.
- Replacement Reserves on Deposit totaling $55,000 on January 1, 2017.
- Replacement Reserves on Deposit totaling $104,382 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $312,760 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2016 to 2018 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $257,760.

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

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

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
	DOCK I											
1	Dock I asphalt pavement, seal coat	1,458		1,141		1,141	317	(1,458)				
2	Dock I asphalt pavement, overlay	13,770								12,637		12,637
3	Dock I concrete walk and terraced step	1,362										
4	Dock I wood platform, ramp & paver v	1,250		978		978	272	(1,250)				
5	Dock I concrete boat ramp - 14" strip a	5,609								5,147		5,147
6	Dock I concrete boat ramp - solid conc	4,350								3,992		3,992
7	Dock I boat ramp pier	9,000		9,000	(9,000)							
8	Dock I main pier, branch and finger inc	82,500					50,934		50,934	31,566	(82,500)	
9	Dock I mooring piers	25,375					15,666		15,666	9,709	(25,375)	
10	Dock I floating platforms - refurbish	48,750		38,136		38,136	10,614	(48,750)				
11	Dock I stone bulkheads (25%)	31,050								28,494		28,494
12	Dock I water supply	2,200					1,358		1,358	842	(2,200)	
13	Dock I electrical service	4,500					2,778		2,778	1,722	(4,500)	
14	Dock I security camera system - install	2,500		2,500	(2,500)							
15	Dock I security camera recorder & box	1,200										
16	Dock I security camera & cable - allow	350								350		350
17	Dock 1 Canoe rack replace, allowance	1,250										
	DOCK II											
18	Dock II asphalt entrance drive (orginal	3,672					2,267		2,267	1,405	(3,672)	
19	Dock II asphalt entrance drive (new)	2,448										
20	Dock II asphalt entry drive seal coat	648										
21	Dock II gravel parking refurbishment	14,250										
22	Dock II storage shed	5,350										
23	Dock II 76 pier structure & pilings	834,600										
24	Dock II decking	123,900										
25	Dock II decking allowance (10%)	12,390										
26	Dock II ladders	2,880										
27	Dock II electrical service	49,500										
28	Dock II electrical power pedestals	43,340										
29	Dock II potable water	9,750										
30	Dock II fire pipe and risers	15,600										
31	Dock II sewage pumpout	20,000										
32	Dock II security camera system - instal	6,880		6,880	(6,880)							
33	Dock II security camera recorder & bo	1,100										
34	Dock II security camera & cable - allo	1,380								1,380		1,380
35	Dock II Canoe rack replace, allowance	1,250										
36	Dock II misc. replacement allowance	3,000								3,000		3,000
	DOCK III											
37	Dock III pathway refurbishment	1,500		1,173		1,173	327	(1,500)				
38	Dock III pier and docks	38,500					23,769		23,769	14,731	(38,500)	
39	Dock III mooring piles	4,375					2,701		2,701	1,674	(4,375)	

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CF4 cont'd

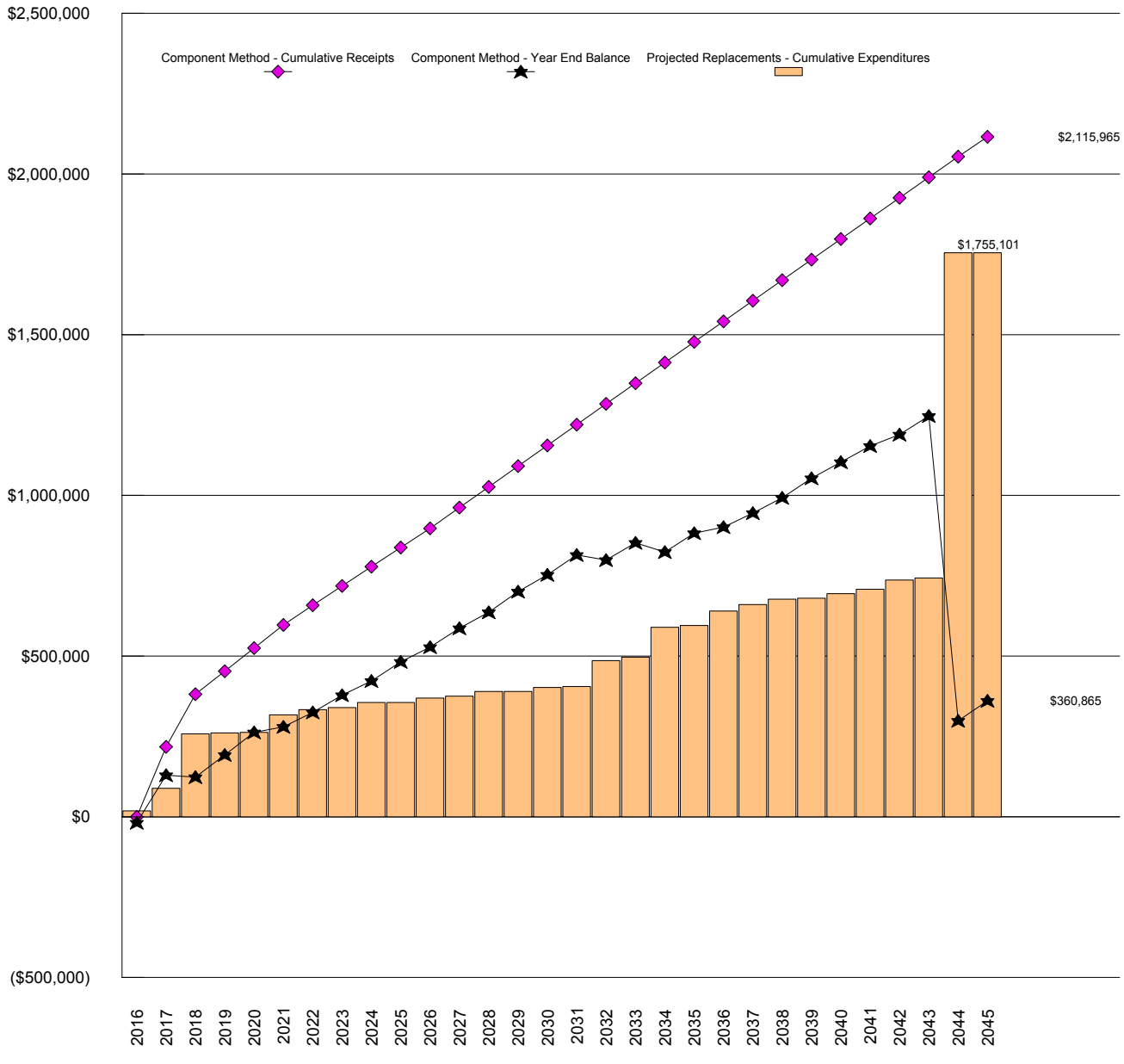
Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
40	Dock III boat lift	17,350		13,572		13,572	3,778	(17,350)				
41	Dock III electrical service	5,450					3,365		3,365	2,085	(5,450)	
42	Dock III water supply	2,500					1,543		1,543	957	(2,500)	
43	Dock III riprap wave breakers (10%)	14,800										

COMPONENT METHOD

$250,787 **COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2016.**

General. The Component Method (also referred to as the Full Funded Method) is a very conservative mathematical model developed by HUD in the early 1980s. Each of the 43 Projected Replacements listed in the Replacement Reserve Inventory is treated as a separate account. The Beginning Balance is allocated to each of the individual accounts, as is all subsequent funding of Replacement Reserves. These funds are "locked" in these individual accounts and are not available to fund other Projected Replacements. The calculation of Recommended Annual Funding of Replacement Reserves is a multi-step process outlined in more detail on Page CM2.

Component Method - Cumulative Receipts and Expenditures Graph



COMPONENT METHOD (cont'd)

- Current Funding Objective. A Current Funding Objective is calculated for each of the Projected Replacements listed in the Replacement Reserve Inventory. Replacement Cost is divided by the Normal Economic Life to determine the nominal annual contribution. The Remaining Economic Life is then subtracted from the Normal Economic Life to calculate the number of years that the nominal annual contribution should have been made. The two values are then multiplied to determine the Current Funding Objective. This is repeated for each of the 43 Projected Replacements. The total, $314,359, 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 ($-251,112) by the Current Funding Objective ($314,359). At UCI - Nautical the Funding Percentage is -79.9%

- Allocation of the Beginning Balance. The Beginning Balance is divided among the 43 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 -79.9 percent funded, there is $-639 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 $250,787, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2016).

  In our fence example, the $-639 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 $820. Next year, the deposit remains $820, but in the third year, the fence is replaced and the annual funding adjusts to $100.

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

Component Method Data - Years 1 through 30

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Beginning balance	($251,112)									
Recommended annual funding	$250,787	$218,182	$163,297	$71,916	$71,916	$72,002	$61,139	$59,998	$59,934	$59,649
Interest on reserves										
Expenditures	$18,380	$70,308	$169,072	$3,000	$1,730	$54,779	$16,258	$6,148	$15,980	
Year end balance	($18,705)	$129,169	$123,394	$192,310	$262,496	$279,719	$324,600	$378,450	$422,404	$482,053
Cumulative Expenditures	$18,380	$88,688	$257,760	$260,760	$262,490	$317,269	$333,527	$339,675	$355,655	$355,655
Cumulative Receipts	($325)	$217,857	$381,154	$453,070	$524,986	$596,988	$658,127	$718,125	$778,059	$837,708

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Recommended annual funding	$59,649	$64,536	$64,536	$64,536	$64,536	$64,536	$64,536	$64,536	$64,362	$64,048
Interest on reserves										
Expenditures	$13,752	$5,958	$14,768		$12,390	$3,000	$80,378	$10,946	$92,860	$5,300
Year end balance	$527,950	$586,528	$636,296	$700,831	$752,977	$814,513	$798,671	$852,261	$823,762	$882,511
Cumulative Expenditures	$369,407	$375,365	$390,133	$390,133	$402,523	$405,523	$485,901	$496,847	$589,707	$595,007
Cumulative Receipts	$897,357	$961,893	$1,026,428	$1,090,964	$1,155,500	$1,220,036	$1,284,572	$1,349,108	$1,413,469	$1,477,518

Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Recommended annual funding	$64,048	$64,048	$64,048	$64,048	$64,048	$64,048	$64,048	$64,048	$64,048	$62,014
Interest on reserves										
Expenditures	$45,170	$20,308	$16,710	$3,000	$14,120	$13,770	$28,648	$6,148	$1,012,220	
Year end balance	$901,389	$945,129	$992,467	$1,053,516	$1,103,444	$1,153,722	$1,189,122	$1,247,022	$298,851	$360,865
Cumulative Expenditures	$640,177	$660,485	$677,195	$680,195	$694,315	$708,085	$736,733	$742,881	$1,755,101	$1,755,101
Cumulative Receipts	$1,541,566	$1,605,614	$1,669,662	$1,733,710	$1,797,759	$1,861,807	$1,925,855	$1,989,903	$2,053,951	$2,115,965

COMPONENT METHOD ACCOUNTING SUMMARY

This UCI - Nautical - Component Method Accounting Summary is an attachment to the UCI - Nautical - Replacement Reserve Study dated Revised May 13, 2016 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2016, 2017, and 2018 Component Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2016, 2017, and 2018. Each of the 43 Projected Replacements listed in the UCI - Nautical Replacement Reserve Inventory has been assigned to one of 3 categories. The following information is summarized by category in each report:
  - Normal Economic Life and Remaining Economic Life of the Projected Replacements.
  - Cost of all Scheduled Replacements in each category.
  - Replacement Reserves on Deposit allocated to the category at the beginning and end of the report period.
  - Cost of Projected Replacements in the report period.
  - Recommended Replacement Reserve Funding allocated to the category during the report period as calculated by the Component Method.
- THREE-YEAR REPLACEMENT FUNDING REPORT. This report details the allocation of the $-251,112 Beginning Balance (at the start of the Study Year) and the $632,266 of additional Replacement Reserve funding from 2016 to 2018 (as calculated in the Replacement Reserve Analysis) to each of the 43 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using the Component Method as outlined in the Replacement Reserve Analysis.
  The calculated data includes:
  - Identification and estimated cost of each Projected Replacement schedule in years 2016 through 2018.
  - Allocation of the $-251,112 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the $632,266 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2016 through 2018, by the Component Method.

2016 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 43 Projected Replacements included in the UCI - Nautical Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CM1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of $-251,112 as of the first day of the Study Year, January 1, 2016.
- Total reserve funding (including the Beginning Balance) of $-325 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2016 being accomplished in 2016 at a cost of $18,380.

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

2016 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
DOCK I	4 to 60 years	0 to 19 years	$236,474	($157,083)	$144,250	$11,500	($24,333)
DOCK II	2 to 60 years	0 to 48 years	$1,151,938	($40,352)	$58,601	$6,880	$11,369
DOCK III	10 to 40 years	1 to 6 years	$84,475	($53,677)	$47,936		($5,741)

2017 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 43 Projected Replacements included in the UCI - Nautical Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CM2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $-18,705 on January 1, 2017.
- Total reserve funding (including the Beginning Balance) of $217,857 from 2016 through 2017.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2017 being accomplished in 2017 at a cost of $70,308.

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

2017 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
DOCK I	4 to 60 years	0 to 59 years	$236,474	($24,333)	$123,906	$51,458	$48,114
DOCK II	2 to 60 years	1 to 59 years	$1,151,938	$11,369	$46,340		$57,709
DOCK III	10 to 40 years	0 to 5 years	$84,475	($5,741)	$47,936	$18,850	$23,346

2018 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 43 Projected Replacements included in the UCI - Nautical Replacement Reserve Inventory has been assigned to one of the 3 categories listed in TABLE CM3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $129,169 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $381,154 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2018 being accomplished in 2018 at a cost of $169,072.

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

2018 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2018 BEGINNING BALANCE	2018 RESERVE FUNDING	2018 PROJECTED REPLACEMENTS	2018 END OF YEAR BALANCE
DOCK I	4 to 60 years	0 to 58 years	$236,474	$48,114	$84,145	$114,575	$17,684
DOCK II	2 to 60 years	0 to 58 years	$1,151,938	$57,709	$46,340	$3,672	$100,377
DOCK III	10 to 40 years	0 to 19 years	$84,475	$23,346	$32,813	$50,825	$5,334

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the $-251,112 Beginning Balance, as reported by the Association and the $632,266 of Replacement Reserve Funding calculated by the Cash Flow Method from 2016 to 2018, to the 43 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $-251,112 on January 1, 2016.
- Replacement Reserves on Deposit totaling $-18,705 on January 1, 2017.
- Replacement Reserves on Deposit totaling $129,169 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $381,154 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2016 to 2018 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $257,760.

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

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
	DOCK I											
1	Dock I asphalt pavement, seal coat	1,458	(699)	1,078		380	1,078	(1,458)		292		292
2	Dock I asphalt pavement, overlay	13,770	(7,700)	3,578		(4,121)	3,578		(543)	3,578		3,035
3	Dock I concrete walk and terraced step	1,362	(889)	205		(684)	205		(479)	205		(275)
4	Dock I wood platform, ramp & paver v	1,250	(865)	1,058		192	1,058	(1,250)		83		83
5	Dock I concrete boat ramp - 14" strip a	5,609	(3,584)	1,532		(2,052)	1,532		(520)	1,532		1,012
6	Dock I concrete boat ramp - solid conc	4,350	(2,780)	1,188		(1,592)	1,188		(403)	1,188		785
7	Dock I boat ramp pier	9,000	(7,189)	16,189	(9,000)		300		300	300		600
8	Dock I main pier, branch and finger in	82,500	(59,311)	47,270		(12,041)	47,270		35,230	47,270	(82,500)	
9	Dock I mooring piers	25,375	(18,243)	14,539		(3,704)	14,539		10,836	14,539	(25,375)	
10	Dock I floating platforms - refurbish	48,750	(33,750)	41,250		7,500	41,250	(48,750)		3,250		3,250
11	Dock I stone bulkheads (25%)	31,050	(14,882)	7,655		(7,226)	7,655		429	7,655		8,084
12	Dock I water supply	2,200	(1,640)	1,280		(360)	1,280		920	1,280	(2,200)	
13	Dock I electrical service	4,500	(3,355)	2,618		(737)	2,618		1,882	2,618	(4,500)	
14	Dock I security camera system - install	2,500	(1,997)	4,497	(2,500)	(0)	42		42	42		83
15	Dock I security camera recorder & box	1,200		60		60	60		120	60		180
16	Dock I security camera & cable - allow	350		70		70	70		140	70		210
17	Dock 1 Canoe rack replace, allowance	1,250	(200)	181		(18)	181		163	181		344
	DOCK II											
18	Dock II asphalt entrance drive (orginal	3,672	(2,493)	2,055		(438)	2,055		1,617	2,055	(3,672)	
19	Dock II asphalt entrance drive (new)	2,448	(196)	147		(49)	147		98	147		245
20	Dock II asphalt entry drive seal coat	648		81		81	81		162	81		243
21	Dock II gravel parking refurbishment	14,250	(1,138)	1,710		572	1,710		2,281	1,710		3,991
22	Dock II storage shed	5,350	(1,197)	364		(833)	364		(469)	364		(106)
23	Dock II 76 pier structure & pilings	834,600	(22,223)	29,546		7,323	29,546		36,868	29,546		66,414
24	Dock II decking	123,900	(3,299)	4,386		1,087	4,386		5,473	4,386		9,859
25	Dock II decking allowance (10%)	12,390		1,126		1,126	1,126		2,253	1,126		3,379
26	Dock II ladders	2,880	(115)	158		43	158		200	158		358
27	Dock II electrical service	49,500	(791)	1,026		236	1,026		1,262	1,026		2,288
28	Dock II electrical power pedestals	43,340	(1,731)	2,372		641	2,372		3,013	2,372		5,385
29	Dock II potable water	9,750	(260)	345		86	345		431	345		776
30	Dock II fire pipe and risers	15,600	(415)	552		137	552		689	552		1,241
31	Dock II sewage pumpout	20,000	(799)	1,095		296	1,095		1,391	1,095		2,485
32	Dock II security camera system - instal	6,880	(5,496)	12,376	(6,880)	(0)	115		115	115		229
33	Dock II security camera recorder & bo	1,100		55		55	55		110	55		165
34	Dock II security camera & cable - allo	1,380		276		276	276		552	276		828
35	Dock II Canoe rack replace, allowance	1,250	(200)	181		(18)	181		163	181		344
36	Dock II misc. replacement allowance	3,000		750		750	750		1,500	750		2,250
	DOCK III											
37	Dock III pathway refurbishment	1,500	(959)	1,229		271	1,229	(1,500)		150		150
38	Dock III pier and docks	38,500	(27,679)	22,060		(5,619)	22,060		16,440	22,060	(38,500)	
39	Dock III mooring piles	4,375	(3,145)	2,507		(639)	2,507		1,868	2,507	(4,375)	

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4 cont'd

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
40	Dock III boat lift	17,350	(12,473)	14,912		2,438	14,912	(17,350)		868		868
41	Dock III electrical service	5,450	(4,027)	3,159		(868)	3,159		2,291	3,159	(5,450)	
42	Dock III water supply	2,500	(1,847)	1,449		(398)	1,449		1,051	1,449	(2,500)	
43	Dock III riprap wave breakers (10%)	14,800	(3,547)	2,621		(926)	2,621		1,695	2,621		4,316

EXECUTIVE SUMMARY

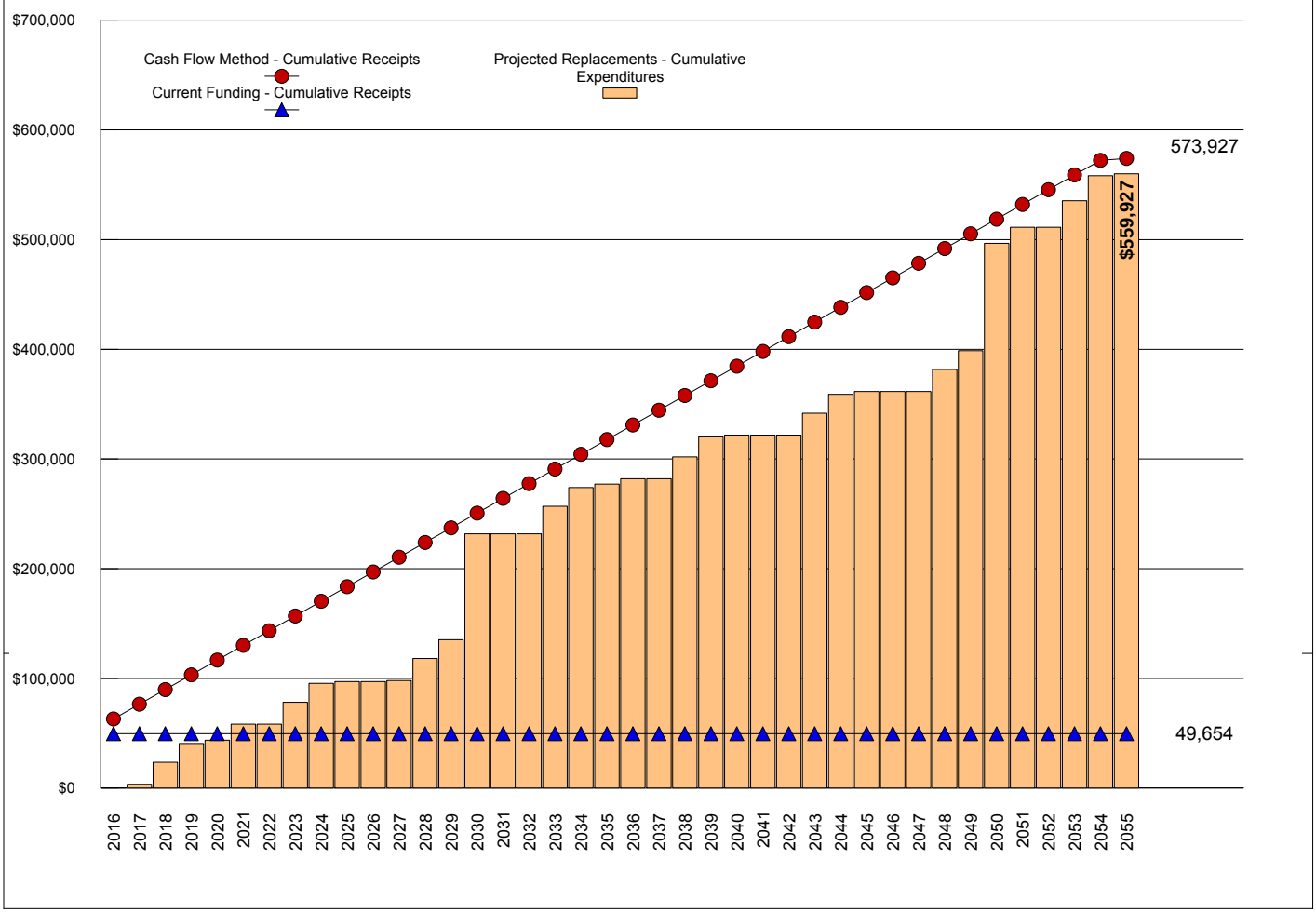
The UCI - Tennis Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 14 Projected Replacements identified in the Replacement Reserve Inventory.

$13,400 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2016**
$14.89 Per unit (average), minimum monthly funding of Replacement Reserves

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

UCI - Tennis reports a that the Association is currently not funding Replacement Reserves.
This Study contains the information necessary for the Association to develop a Funding Plan to address the $559,927 of Projected Replacements identified in the Replacement Reserve Inventory over the 40-year Study Period.

#1 - Cumulative Replacement Reserve Funding and Expenditures Graph



The Current Funding Objective as calculated by the Component Method (Fully Funded) is $51,031 making the reserve account 97.3% funded. See the Appendix for more information on this method.

REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

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

2016 | **STUDY YEAR**

The Association reports that their accounting year begins on January 1, and the Study Year, the first year evaluated by the Replacement Reserve Analysis, begins on January 1, 2016.

40 Years | **STUDY PERIOD**

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

$49,654 | **STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling $49,654 at the start of the Study Year.

Level Two | **LEVEL OF SERVICE**

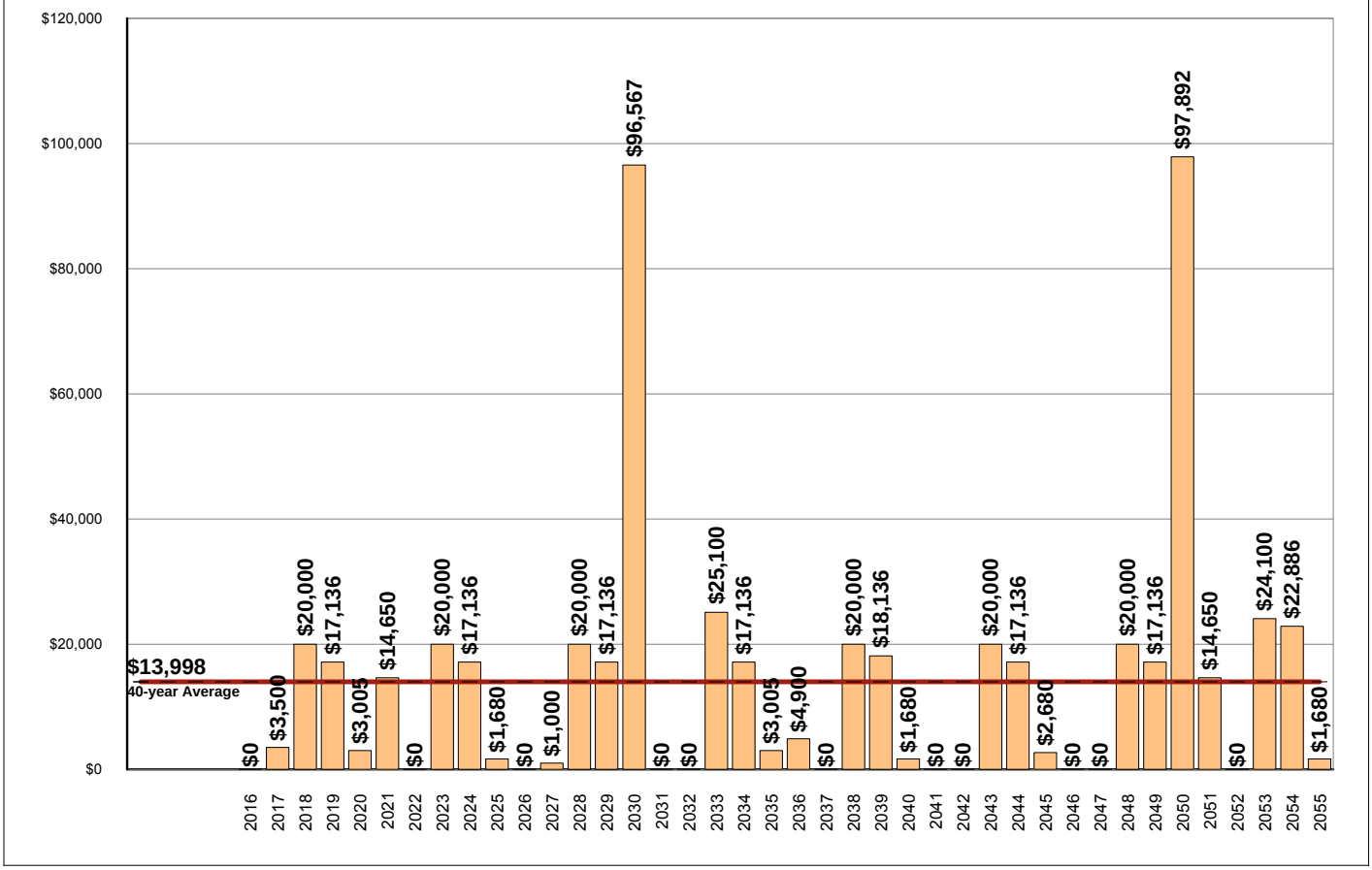
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

$559,927 | **REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The UCI - Tennis Replacement Reserve Inventory identifies 14 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be $559,927 over the 40-year Study Period. The Projected Replacements are divided into 4 major categories starting on Page B3. Pages B1-B2 provide detailed information on the Replacement Reserve Inventory.

#2 - Annual Expenditures for Projected Replacements Graph

This graph shows annual expenditures for Projected Replacements over the 40-year Study Period. The red line shows the average annual expenditure of $13,998. Section C provides a year by year Calender of these expenditures.



UPDATING

UPDATING OF THE FUNDING PLAN

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

UPDATING OF THE REPLACEMENT RESERVE STUDY

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

ANNUAL EXPENDITURES

The annual expenditures that comprise the $559,927 of Projected Expenditures over the 40-year Study Period are detailed in Table 3. A year-by-year listing of the specific projects can be found beginning on Page C2.

#3 - Table of Annual Expenditures and Current Funding Data - Years 1 through 40

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Starting Balance	$49,654									
Projected Replacements		($3,500)	($20,000)	($17,136)	($3,005)	($14,650)		($20,000)	($17,136)	($1,680)
End of Year Balance	$49,654	$46,154	$26,154	$9,018	$6,013	($8,637)	($8,637)	($28,637)	($45,773)	($47,453)
Cumulative Expenditures		($3,500)	($23,500)	($40,636)	($43,641)	($58,291)	($58,291)	($78,291)	($95,427)	($97,107)
Cumulative Receipts	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654
Year	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Projected Replacements		($1,000)	($20,000)	($17,136)	($96,567)			($25,100)	($17,136)	($3,005)
End of Year Balance	($47,453)	($48,453)	($68,453)	($85,589)	($182,156)	($182,156)	($182,156)	($207,256)	($224,392)	($227,397)
Cumulative Expenditures	($97,107)	($98,107)	($118,107)	($135,243)	($231,810)	($231,810)	($231,810)	($256,910)	($274,046)	($277,051)
Cumulative Receipts	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654
Year	**2036**	**2037**	**2038**	**2039**	**2040**	**2041**	**2042**	**2043**	**2044**	**2045**
Projected Replacements	($4,900)		($20,000)	($18,136)	($1,680)			($20,000)	($17,136)	($2,680)
End of Year Balance	($232,297)	($232,297)	($252,297)	($270,433)	($272,113)	($272,113)	($272,113)	($292,113)	($309,249)	($311,929)
Cumulative Expenditures	($281,951)	($281,951)	($301,951)	($320,087)	($321,767)	($321,767)	($321,767)	($341,767)	($358,903)	($361,583)
Cumulative Receipts	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654
Year	**2046**	**2047**	**2048**	**2049**	**2050**	**2051**	**2052**	**2053**	**2054**	**2055**
Projected Replacements			($20,000)	($17,136)	($97,892)	($14,650)		($24,100)	($22,886)	($1,680)
End of Year Balance	($311,929)	($311,929)	($331,929)	($349,065)	($446,957)	($461,607)	($461,607)	($485,707)	($508,593)	($510,273)
Cumulative Expenditures	($361,583)	($361,583)	($381,583)	($398,719)	($496,611)	($511,261)	($511,261)	($535,361)	($558,247)	($559,927)
Cumulative Receipts	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654	$49,654

Table #3 shows the annual costs for Projected Replacements and the cumulative annual expenditures for the Projected Replacements. Table #3 also shows the Starting Balance and Current Annual Funding if reported by Association. When this information is provided, Table #3 will calculate the consequences of continuing to fund Replacement Reserves at current levels over the 40-year Study Period.

This information is for use by the Association for the development of a Funding Plan. The Funding Plan is a critical planning tool if the Association is to provide timely and adequate funding for the $559,927 of Projected Replacements scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

CASH FLOW METHOD FUNDING

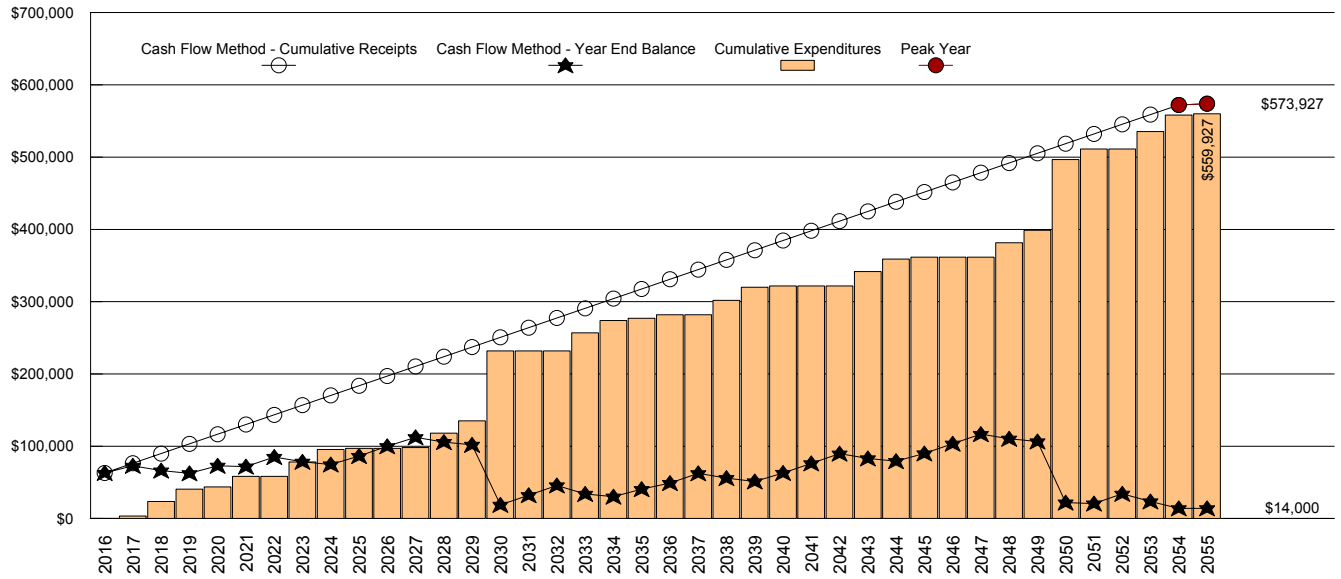
$13,400 **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2016**

$14.89 Per unit (average), minimum monthly funding of Replacement Reserves

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

- Peak Years. The First Peak Year occurs in 2054 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of $558,247 of replacements from 2016 to 2054. Recommended funding declines from $13,400 in 2054 to $1,680 in 2055. Peak Years are identified in Chart 4 and Table 5.
- Minimum Balance. The calculations assume a Minimum Balance of $14,000 in Replacement Reserves. This is approx. 12 months of average expenditures based on the $13,998, 40-year average annual expenditure.
- Cash Flow Method Study Period. Cash Flow Method calculates funding for $559,927 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2055 and in 2055, the end of year balance will always be the Minimum Balance.

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



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

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Starting Balance	$49,654									
Projected Replacements		($3,500)	($20,000)	($17,136)	($3,005)	($14,650)		($20,000)	($17,136)	($1,680)
Annual Deposit	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400
End of Year Balance	$63,054	$72,954	$66,353	$62,617	$73,012	$71,762	$85,162	$78,562	$74,825	$86,545
Cumulative Expenditures		$3,500	$23,500	$40,636	$43,641	$58,291	$58,291	$78,291	$95,427	$97,107
Cumulative Receipts	$63,054	$76,454	$89,853	$103,253	$116,653	$130,053	$143,453	$156,853	$170,252	$183,652

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Projected Replacements		($1,000)	($20,000)	($17,136)	($96,567)			($25,100)	($17,136)	($3,005)
Annual Deposit	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400
End of Year Balance	$99,945	$112,345	$105,745	$102,008	$18,841	$32,241	$45,641	$33,941	$30,205	$40,599
Cumulative Expenditures	($97,107)	($98,107)	($118,107)	($135,243)	($231,810)	($231,810)	($231,810)	($256,910)	($274,046)	($277,051)
Cumulative Receipts	$197,052	$210,452	$223,852	$237,251	$250,651	$264,051	$277,451	$290,851	$304,251	$317,650

Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Projected Replacements	($4,900)		($20,000)	($18,136)	($1,680)			($20,000)	($17,136)	($2,680)
Annual Deposit	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400
End of Year Balance	$49,099	$62,499	$55,899	$51,163	$62,883	$76,282	$89,682	$83,082	$79,346	$90,066
Cumulative Expenditures	($281,951)	($281,951)	($301,951)	($320,087)	($321,767)	($321,767)	($321,767)	($341,767)	($358,903)	($361,583)
Cumulative Receipts	$331,050	$344,450	$357,850	$371,250	$384,650	$398,049	$411,449	$424,849	$438,249	$451,649

Year	2046	2047	2048	2049	2050	2051	2052	2053	1st Peak - 2054	2nd Peak - 2055
Projected Replacements			($20,000)	($17,136)	($97,892)	($14,650)		($24,100)	($22,886)	($1,680)
Annual Deposit	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$13,400	$1,680
End of Year Balance	$103,465	$116,865	$110,265	$106,529	$22,037	$20,787	$34,186	$23,486	$14,000	$14,000
Cumulative Expenditures	($361,583)	($361,583)	($381,583)	($398,719)	($496,611)	($511,261)	($511,261)	($535,361)	($558,247)	($559,927)
Cumulative Receipts	$465,048	$478,448	$491,848	$505,248	$518,648	$532,048	$545,447	$558,847	$572,247	$573,927

INFLATION ADJUSTED FUNDING

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

$13,400 2016 - CASH FLOW METHOD RECOMMENDED FUNDING

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

$14,087 2017 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2017 funding based on three assumptions;

- Replacement Reserves on Deposit totaling $63,054 on January 1, 2017.
- No Expenditures from Replacement Reserves in 2016.
- Construction Cost Inflation of 4.50 percent in 2016.

The $14,087 inflation adjusted funding in 2017 is a 5.13 percent increase over the non-inflation adjusted 2017 funding of $13,400.

$14,819 2018 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2018 funding based on three assumptions;

- Replacement Reserves on Deposit totaling $73,483 on January 1, 2018.
- All 2017 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than $3,658.
- Construction Cost Inflation of 4.50 percent in 2017.

The $14,819 inflation adjusted funding in 2018 is a 10.59 percent increase over the non-inflation adjusted 2018 funding of $13,400.

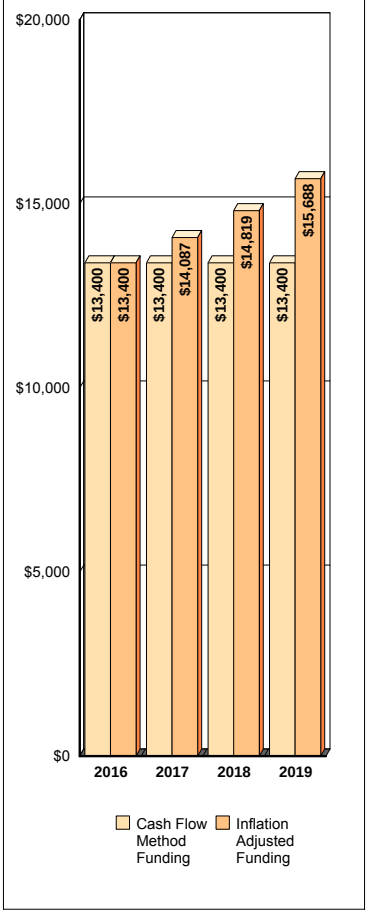
$15,688 2019 - INFLATION ADJUSTED FUNDING

A new analysis calculates 2019 funding based on three assumptions;

- Replacement Reserves on Deposit totaling $66,462 on January 1, 2019.
- All 2018 Projected Replacements listed on Page C2 accomplished at a cost to Replacement Reserves less than $21,841.
- Construction Cost Inflation of 4.50 percent in 2018.

The $15,688 inflation adjusted funding in 2019 is a 17.07 percent increase over the non-inflation adjusted funding of $13,400.

#6 - Inflation Adjusted Funding



YEAR FIVE & BEYOND

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

INFLATION ADJUSTMENT

Prior to approving a budget based upon the 2017, 2018 and 2019 inflation adjusted funding calculations above, the 4.50 percent base rate of inflation used in our calculations should be compared to rates published by the Bureau of Labor Statistics. If there is a significant discrepancy (over 1 percent), contact Miller Dodson + Associates prior to using the Inflation Adjusted Funding.

INTEREST ON RESERVES

The recommended funding calculations do not account for interest earned on Replacement Reserves.
In 2016, based on a 1.00 percent interest rate, we estimate the Association may earn $564 on an average balance of $56,354, $683 on an average balance of $68,269 in 2017, and $700 on $69,973 in 2018. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2016 funding from $13,400 to $12,836 (a 4.21 percent reduction), $14,087 to $13,404 in 2017 (a 4.85 percent reduction), and $14,819 to $14,120 in 2018 (a 4.72 percent reduction).

REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

- UCI - Tennis has 75 units. The type of property is a voluntary social and recreational club.
- The Cash Flow Method calculates the minimum annual funding necessary to prevent Replacement Reserves from dropping below the Minimum Balance. Failure to fund at least the recommended levels may result in funding not being available for the Projected Replacements listed in the Replacement Reserve Inventory.
- The accuracy of the Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 14 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B1.

REPLACEMENT RESERVE INVENTORY
GENERAL INFORMATION

UCI - Tennis - Replacement Reserve Inventory identifies 19 items. Two types of items are identified, Projected Replacements and Excluded Items:

- PROJECTED REPLACEMENTS. 14 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 $163,028. Replacements totaling $559,927 are scheduled in the Replacement Reserve Inventory over the 40-year Study Period.

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

- EXCLUDED ITEMS. 5 of the items are Excluded Items, and expenditures for these items are NOT scheduled for funding from Replacement Reserves. The accuracy of the calculations made in the Replacement Reserve Analysis is dependent on expenditures NOT being made for Excluded Items. The Excluded Items are listed in the Replacement Reserve Inventory to identify specific items and categories of items that are not to be funded from Replacement Reserves. There are multiple categories of items that are typically excluded from funding by Replacement Reserves, including but not limited to:

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

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

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

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

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

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

- CATEGORIES. The 19 items included in the UCI - Tennis Replacement Reserve Inventory are divided into 4 major categories. Each category is printed on a separate page, Pages B3 to B5.

- LEVEL OF SERVICE. This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level Two - Update (with site visit and on-site review), as defined by the National Reserve Study Standards, established in 1998 by Community Associations Institute, which states:

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

REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (cont'd)

- INVENTORY DATA. Each of the 14 Projected Replacements listed in the Replacement Reserve Inventory includes the following data:

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

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

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

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

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

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

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

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

  Each of the 5 Excluded Items includes the Item Description, Units, and Number of Units. Many of the Excluded Items are listed as a 'Lump Sum' with a quantity of 1. For the Excluded Items, this indicates that all of the items identified by the 'Item Description' are excluded from funding by Replacement Reserves.

- REVIEW OF EXPENDITURES. This Replacement Reserve Study should be reviewed by an accounting professional representing the Association prior to implementation.

- PARTIAL FUNDING. Items may have been included in the Replacement Reserve Inventory at less than 100 percent of their full quantity and/or replacement cost. This is done on items that will never be replaced in their entirety, but which may require periodic replacements over an extended period of time. The assumptions that provide the basis for any partial funding are noted in the Comments section.

- REMAINING ECONOMIC LIFE GREATER THAN 40 YEARS. The calculations do not include funding for initial replacements beyond 40 years. These replacements are included in this Study for tracking and evaluation. They should be included for funding in future Studies, when they enter the 40-year window.

TENNIS COURTS
PROJECTED REPLACEMENTS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
1	Tennis court, asphalt overlay	ea	4	$18,000.00	20	14	$72,000
2	Tennis court, color coat	ea	4	$5,000.00	5	2	$20,000
3	Tennis court, crack sealing & repairs	ls	1	$3,500.00	60	1	$3,500
4	Net post & footings	pr	4	$1,280.00	20	14	$5,120
5	Nets	ea	4	$420.00	5	4	$1,680
6	Chain link fence	ft	652	$27.25	20	14	$17,767
7	Wind screen	ft	2,380	$7.20	5	3	$17,136
8	Fiberglass practuce wall	ea	1	$4,100.00	20	17	$4,100
9	Tennis court light, pole	ea	5	$1,750.00	30	5	$8,750
10	Tennis court light, single head	ea	4	$840.00	15	5	$3,360
11	Tennis court light, double head	ea	1	$1,540.00	15	5	$1,540
12	Court entrance awning	ls	1	$1,325.00	15	4	$1,325
13	Bench & storage shed (allowance)	ls	1	$1,000.00	6	5	$1,000
14	Electric panels & lock box	ls	1	$5,750.00	50	38	$5,750
					TENNIS COURTS - Replacement Costs - Subtotal		$163,028

TENNIS COURTS
COMMENTS

- 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 minor repairs to the wind screens, cleaning of fiberglass practice wall, minor repairs to fence & gate, etc.

VALUATION EXCLUSIONS
EXCLUDED ITEMS

ITEM #	ITEM DESCRIPTION	UNIT	NUMBER OF UNITS	UNIT REPLACEMENT COST ($)	NORMAL ECONOMIC LIFE (YRS)	REMAINING ECONOMIC LIFE (YRS)	REPLACEMENT COST ($)
	See General Study for all exclusions	ls	1				EXCLUDED

VALUATION EXCLUSIONS
COMMENTS

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

GOVERNMENT EXCLUSIONS

EXCLUDED ITEMS

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

GOVERNMENT 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 , and adjacent properties.

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

Intentionally Left Blank

PROJECTED ANNUAL REPLACEMENTS
GENERAL INFORMATION

CALENDAR OF ANNUAL REPLACEMENTS. The 14 Projected Replacements in the UCI - Tennis Replacement Reserve Inventory whose replacement is scheduled to be funded from Replacement Reserves are broken down on a year-by-year basis, beginning on Page C2.

REPLACEMENT RESERVE ANALYSIS AND INVENTORY
POLICIES, PROCEDURES, AND ADMINISTRATION

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

PROJECTED REPLACEMENTS - YEARS ONE TO FIFTEEN

Item	2016 - STUDY YEAR	$
	No Scheduled Replacements	

Item	2017 - YEAR 2	$
3	Tennis court, crack sealing &	$3,500
	Total Scheduled Replacements	$3,500

Item	2018 - YEAR 3	$
2	Tennis court, color coat	$20,000
	Total Scheduled Replacements	$20,000

Item	2019 - YEAR 4	$
7	Wind screen	$17,136
	Total Scheduled Replacements	$17,136

Item	2020 - YEAR 5	$
5	Nets	$1,680
12	Court entrance awning	$1,325
	Total Scheduled Replacements	$3,005

Item	2021 - YEAR 6	$
9	Tennis court light, pole	$8,750
10	Tennis court light, single hea	$3,360
11	Tennis court light, double he	$1,540
13	Bench & storage shed (allov	$1,000
	Total Scheduled Replacements	$14,650

Item	2022 - YEAR 7	$
	No Scheduled Replacements	

Item	2023 - YEAR 8	$
2	Tennis court, color coat	$20,000
	Total Scheduled Replacements	$20,000

Item	2024 - YEAR 9	$
7	Wind screen	$17,136
	Total Scheduled Replacements	$17,136

Item	2025 - YEAR 10	$
5	Nets	$1,680
	Total Scheduled Replacements	$1,680

Item	2026 - YEAR 11	$
	No Scheduled Replacements	

Item	2027 - YEAR 12	$
13	Bench & storage shed (allov	$1,000
	Total Scheduled Replacements	$1,000

Item	2028 - YEAR 13	$
2	Tennis court, color coat	$20,000
	Total Scheduled Replacements	$20,000

Item	2029 - YEAR 14	$
7	Wind screen	$17,136
	Total Scheduled Replacements	$17,136

Item	2030 - YEAR 15	$
1	Tennis court, asphalt overlay	$72,000
4	Net post & footings	$5,120
5	Nets	$1,680
6	Chain link fence	$17,767
	Total Scheduled Replacements	$96,567

PROJECTED REPLACEMENTS - YEARS SIXTEEN TO THIRTY

Item	2031 - YEAR 16	$
	No Scheduled Replacements	

Item	2032 - YEAR 17	$
	No Scheduled Replacements	

Item	2033 - YEAR 18	$
2	Tennis court, color coat	$20,000
8	Fiberglass practuce wall	$4,100
13	Bench & storage shed (allov	$1,000
	Total Scheduled Replacements	$25,100

Item	2034 - YEAR 19	$
7	Wind screen	$17,136
	Total Scheduled Replacements	$17,136

Item	2035 - YEAR 20	$
5	Nets	$1,680
12	Court entrance awning	$1,325
	Total Scheduled Replacements	$3,005

Item	2036 - YEAR 21	$
10	Tennis court light, single hea	$3,360
11	Tennis court light, double he	$1,540
	Total Scheduled Replacements	$4,900

Item	2037 - YEAR 22	$
	No Scheduled Replacements	

Item	2038 - YEAR 23	$
2	Tennis court, color coat	$20,000
	Total Scheduled Replacements	$20,000

Item	2039 - YEAR 24	$
7	Wind screen	$17,136
13	Bench & storage shed (allov	$1,000
	Total Scheduled Replacements	$18,136

Item	2040 - YEAR 25	$
5	Nets	$1,680
	Total Scheduled Replacements	$1,680

Item	2041 - YEAR 26	$
	No Scheduled Replacements	

Item	2042 - YEAR 27	$
	No Scheduled Replacements	

Item	2043 - YEAR 28	$
2	Tennis court, color coat	$20,000
	Total Scheduled Replacements	$20,000

Item	2044 - YEAR 29	$
7	Wind screen	$17,136
	Total Scheduled Replacements	$17,136

Item	2045 - YEAR 30	$
5	Nets	$1,680
13	Bench & storage shed (allov	$1,000
	Total Scheduled Replacements	$2,680

PROJECTED REPLACEMENTS - YEARS THIRTY-ONE TO FORTY-FIVE

Item	2046 - YEAR 31	$
	No Scheduled Replacements	

Item	2047 - YEAR 32	$
	No Scheduled Replacements	

Item	2048 - YEAR 33	$
2	Tennis court, color coat	$20,000
	Total Scheduled Replacements	$20,000

Item	2049 - YEAR 34	$
7	Wind screen	$17,136
	Total Scheduled Replacements	$17,136

Item	2050 - YEAR 35	$
1	Tennis court, asphalt overlay	$72,000
4	Net post & footings	$5,120
5	Nets	$1,680
6	Chain link fence	$17,767
12	Court entrance awning	$1,325
	Total Scheduled Replacements	$97,892

Item	2051 - YEAR 36	$
9	Tennis court light, pole	$8,750
10	Tennis court light, single hea	$3,360
11	Tennis court light, double he	$1,540
13	Bench & storage shed (allov	$1,000
	Total Scheduled Replacements	$14,650

Item	2052 - YEAR 37	$
	No Scheduled Replacements	

Item	2053 - YEAR 38	$
2	Tennis court, color coat	$20,000
8	Fiberglass practuce wall	$4,100
	Total Scheduled Replacements	$24,100

Item	2054 - YEAR 39	$
7	Wind screen	$17,136
14	Electric panels & lock box	$5,750
	Total Scheduled Replacements	$22,886

Item	2055 - YEAR 40	$
5	Nets	$1,680
	Total Scheduled Replacements	$1,680

Item	2056 (beyond Study Period)	$
	No Scheduled Replacements	

Item	2057 (beyond Study Period)	$
13	Bench & storage shed (allov	$1,000
	Total Scheduled Replacements	$1,000

Item	2058 (beyond Study Period)	$
2	Tennis court, color coat	$20,000
	Total Scheduled Replacements	$20,000

Item	2059 (beyond Study Period)	$
7	Wind screen	$17,136
	Total Scheduled Replacements	$17,136

Item	2060 (beyond Study Period)	$
5	Nets	$1,680
	Total Scheduled Replacements	$1,680

CASH FLOW METHOD ACCOUNTING SUMMARY

This UCI - Tennis - Cash Flow Method Accounting Summary is an attachment to the UCI - Tennis - Replacement Reserve Study dated Revised May 13, 2016 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2016, 2017, and 2018 Cash Flow Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- CASH FLOW METHOD CATEGORY FUNDING REPORT, 2016, 2017, and 2018. Each of the 14 Projected Replacements listed in the UCI - Tennis Replacement Reserve Inventory has been assigned to one of 1 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 $49,654 Beginning Balance (at the start of the Study Year) and the $40,199 of additional Replacement Reserve Funding in 2016 through 2018 (as calculated in the Replacement Reserve Analysis) to each of the 14 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and discussed below. The calculated data includes:
  - Identification and estimated cost of each Projected Replacement scheduled in years 2016 through 2018.
  - Allocation of the $49,654 Beginning Balance to the Projected Replacements by Chronological Allocation.
  - Allocation of the $40,199 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2016 through 2018, by Chronological Allocation.

- CHRONOLOGICAL ALLOCATION. Chronological Allocation assigns Replacement Reserves to Projected Replacements on a "first come, first serve" basis in keeping with the basic philosophy of the Cash Flow Method. The Chronological Allocation methodology is outlined below.
  - The first step is the allocation of the $49,654 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 UCI - Tennis the Beginning Balance funds all Scheduled Replacements in the Study Year through 2020 and provides partial funding (41%) of replacements scheduled in 2021.
  - The next step is the allocation of the $13,400 of 2016 Cash Flow Method Reserve Funding calculated in the Replacement Reserve Analysis. These funds are first allocated to fund the partially funded Projected Replacements and then to subsequent years in chronological order as outlined above.

    At UCI - Tennis the Beginning Balance and the 2016 Replacement Reserve Funding, funds replacements through 2022 and partial funds (23.8%) replacements in 2023.
  - Allocations of the 2017 and 2018 Reserve Funding are done using the same methodology.
  - The Three-Year Replacement Funding Report details component by component allocations made by Chronological Allocation.

2016 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 14 Projected Replacements included in the UCI - Tennis Replacement Reserve Inventory has been assigned to one of the 1 categories listed in TABLE CF1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of $49,654 as of the first day of the Study Year, January 1, 2016.
- Total reserve funding (including the Beginning Balance) of $63,054 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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

2016 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
TENNIS COURTS	5 to 60 years	1 to 38 years	$163,028	$49,654	$13,400		$63,054

2017 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 14 Projected Replacements included in the UCI - Tennis Replacement Reserve Inventory has been assigned to one of the 1 categories listed in TABLE CF2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $63,054 on January 1, 2017.
- Total reserve funding (including the Beginning Balance) of $76,454 from 2016 through 2017.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2017 being accomplished in 2017 at a cost of $3,500.

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

2017 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
TENNIS COURTS	5 to 60 years	0 to 37 years	$163,028	$63,054	$13,400	($3,500)	$72,954

2018 - CASH FLOW METHOD CATEGORY FUNDING REPORT

Each of the 14 Projected Replacements included in the UCI - Tennis Replacement Reserve Inventory has been assigned to one of the 1 categories listed in TABLE CF3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $72,954 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $89,853 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2018 being accomplished in 2018 at a cost of $20,000.

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

2018 - CASH FLOW METHOD CATEGORY FUNDING - TABLE CF3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2018 BEGINNING BALANCE	2018 RESERVE FUNDING	2018 PROJECTED REPLACEMENTS	2018 END OF YEAR BALANCE
TENNIS COURTS	5 to 60 years	0 to 59 years	$163,028	$72,954	$13,400	($20,000)	$66,353

CASH FLOW METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CF4 below details the allocation of the $49,654 Beginning Balance, as reported by the Association and the $40,199 of Replacement Reserve Funding calculated by the Cash Flow Method from 2016 to 2018, to the 14 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $49,654 on January 1, 2016.
- Replacement Reserves on Deposit totaling $63,054 on January 1, 2017.
- Replacement Reserves on Deposit totaling $72,954 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $89,853 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2016 to 2018 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $23,500.

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

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

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
	TENNIS COURTS											
1	Tennis court, asphalt overlay	72,000										
2	Tennis court, color coat	20,000	20,000	4,763		24,763	13,400		38,163	1,837	(20,000)	20,000
3	Tennis court, crack sealing & repairs	3,500	3,500			3,500		(3,500)				
4	Net post & footings	5,120										
5	Nets	1,680	1,680			1,680			1,680			1,680
6	Chain link fence	17,767										
7	Wind screen	17,136	17,136			17,136			17,136	11,562		28,698
8	Fiberglass practuce wall	4,100										
9	Tennis court light, pole	8,750	3,591	5,159		8,750			8,750			8,750
10	Tennis court light, single head	3,360	1,379	1,981		3,360			3,360			3,360
11	Tennis court light, double head	1,540	632	908		1,540			1,540			1,540
12	Court entrance awning	1,325	1,325			1,325			1,325			1,325
13	Bench & storage shed (allowance)	1,000	410	590		1,000			1,000			1,000
14	Electric panels & lock box	5,750										

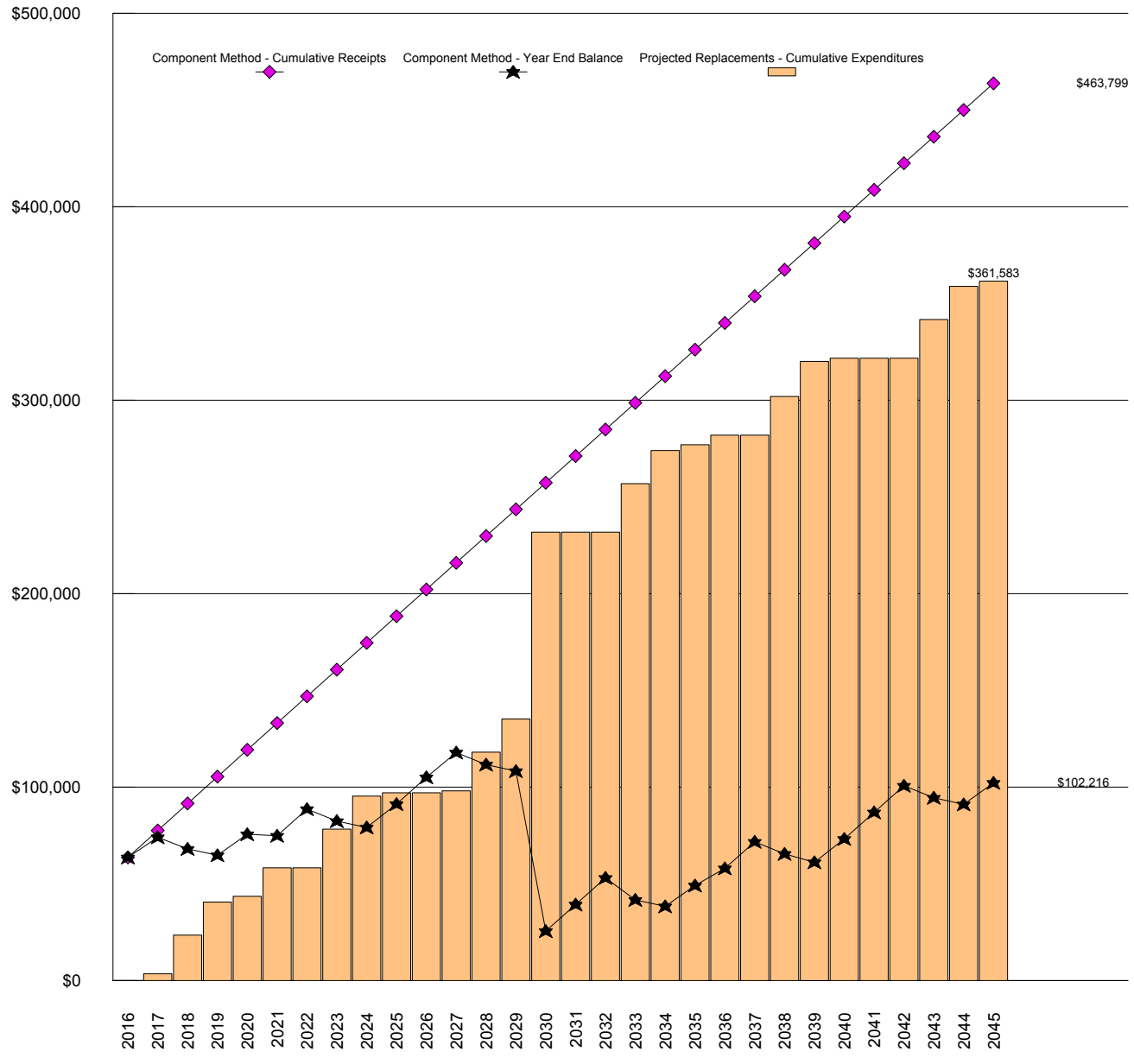
COMPONENT METHOD

$13,994 **COMPONENT METHOD RECOMMENDED ANNUAL FUNDING OF REPLACEMENT RESERVES IN THE STUDY YEAR, 2016.**

$15.55 Per unit (average), recommended monthly funding of Replacement Reserves

General. The Component Method (also referred to as the Full Funded Method) is a very conservative mathematical model developed by HUD in the early 1980s. Each of the 14 Projected Replacements listed in the Replacement Reserve Inventory is treated as a separate account. The Beginning Balance is allocated to each of the individual accounts, as is all subsequent funding of Replacement Reserves. These funds are "locked" in these individual accounts and are not available to fund other Projected Replacements. The calculation of Recommended Annual Funding of Replacement Reserves is a multi-step process outlined in more detail on Page CM2.

Component Method - Cumulative Receipts and Expenditures Graph



COMPONENT METHOD (cont'd)

- Current Funding Objective. A Current Funding Objective is calculated for each of the Projected Replacements listed in the Replacement Reserve Inventory. Replacement Cost is divided by the Normal Economic Life to determine the nominal annual contribution. The Remaining Economic Life is then subtracted from the Normal Economic Life to calculate the number of years that the nominal annual contribution should have been made. The two values are then multiplied to determine the Current Funding Objective. This is repeated for each of the 14 Projected Replacements. The total, $51,031, 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 ($49,654) by the Current Funding Objective ($51,031). At UCI - Tennis the Funding Percentage is 97.3%

- Allocation of the Beginning Balance. The Beginning Balance is divided among the 14 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 97.3 percent funded, there is $778 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 $13,994, the Component Method Recommended Annual Funding of Replacement Reserves in the Study Year (2016).

  In our fence example, the $778 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 $111. Next year, the deposit remains $111, but in the third year, the fence is replaced and the annual funding adjusts to $100.

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

Component Method Data - Years 1 through 30

Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Beginning balance	$49,654									
Recommended annual funding	$13,994	$13,994	$13,948	$13,876	$13,853	$13,848	$13,803	$13,803	$13,803	$13,803
Interest on reserves										
Expenditures		$3,500	$20,000	$17,136	$3,005	$14,650		$20,000	$17,136	$1,680
Year end balance	$63,648	$74,141	$68,089	$64,829	$75,677	$74,875	$88,678	$82,481	$79,149	$91,272
Cumulative Expenditures		$3,500	$23,500	$40,636	$43,641	$58,291	$58,291	$78,291	$95,427	$97,107
Cumulative Receipts	$63,648	$77,641	$91,589	$105,465	$119,318	$133,166	$146,969	$160,772	$174,576	$188,379

Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Recommended annual funding	$13,803	$13,803	$13,803	$13,803	$13,803	$13,761	$13,761	$13,761	$13,760	$13,760
Interest on reserves										
Expenditures		$1,000	$20,000	$17,136	$96,567			$25,100	$17,136	$3,005
Year end balance	$105,076	$117,879	$111,682	$108,350	$25,586	$39,347	$53,107	$41,768	$38,392	$49,147
Cumulative Expenditures	$97,107	$98,107	$118,107	$135,243	$231,810	$231,810	$231,810	$256,910	$274,046	$277,051
Cumulative Receipts	$202,183	$215,986	$229,789	$243,593	$257,396	$271,157	$284,917	$298,678	$312,438	$326,198

Year	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Recommended annual funding	$13,760	$13,760	$13,760	$13,760	$13,760	$13,760	$13,760	$13,760	$13,760	$13,760
Interest on reserves										
Expenditures	$4,900		$20,000	$18,136	$1,680			$20,000	$17,136	$2,680
Year end balance	$58,007	$71,768	$65,528	$61,152	$73,232	$86,992	$100,752	$94,512	$91,136	$102,216
Cumulative Expenditures	$281,951	$281,951	$301,951	$320,087	$321,767	$321,767	$321,767	$341,767	$358,903	$361,583
Cumulative Receipts	$339,958	$353,719	$367,479	$381,239	$394,999	$408,759	$422,519	$436,279	$450,039	$463,799

COMPONENT METHOD ACCOUNTING SUMMARY

This UCI - Tennis - Component Method Accounting Summary is an attachment to the UCI - Tennis - Replacement Reserve Study dated Revised May 13, 2016 and is for use by accounting and reserve professionals experienced in Association funding and accounting principles. This Summary consists of four reports, the 2016, 2017, and 2018 Component Method Category Funding Reports (3) and a Three-Year Replacement Funding Report.

- COMPONENT METHOD CATEGORY FUNDING REPORT, 2016, 2017, and 2018. Each of the 14 Projected Replacements listed in the UCI - Tennis Replacement Reserve Inventory has been assigned to one of 1 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 $49,654 Beginning Balance (at the start of the Study Year) and the $41,935 of additional Replacement Reserve funding from 2016 to 2018 (as calculated in the Replacement Reserve Analysis) to each of the 14 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made using the Component Method as outlined in the Replacement Reserve Analysis.
  The calculated data includes:
  - Identification and estimated cost of each Projected Replacement schedule in years 2016 through 2018.
  - Allocation of the $49,654 Beginning Balance to the Projected Replacements by the Component Method.
  - Allocation of the $41,935 of additional Replacement Reserve Funding recommended in the Replacement Reserve Analysis in years 2016 through 2018, by the Component Method.

2016 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 14 Projected Replacements included in the UCI - Tennis Replacement Reserve Inventory has been assigned to one of the 1 categories listed in TABLE CM1 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- A Beginning Balance of $49,654 as of the first day of the Study Year, January 1, 2016.
- Total reserve funding (including the Beginning Balance) of $63,648 in the Study Year.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.

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

2016 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM1

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2016 BEGINNING BALANCE	2016 RESERVE FUNDING	2016 PROJECTED REPLACEMENTS	2016 END OF YEAR BALANCE
TENNIS COURTS	5 to 60 years	1 to 38 years	$163,028	$49,654	$13,994		$63,648

2017 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 14 Projected Replacements included in the UCI - Tennis Replacement Reserve Inventory has been assigned to one of the 1 categories listed in TABLE CM2 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $63,648 on January 1, 2017.
- Total reserve funding (including the Beginning Balance) of $77,641 from 2016 through 2017.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2017 being accomplished in 2017 at a cost of $3,500.

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

2017 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM2

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2017 BEGINNING BALANCE	2017 RESERVE FUNDING	2017 PROJECTED REPLACEMENTS	2017 END OF YEAR BALANCE
TENNIS COURTS	5 to 60 years	0 to 37 years	$163,028	$63,648	$13,994	$3,500	$74,141

2018 - COMPONENT METHOD CATEGORY FUNDING REPORT

Each of the 14 Projected Replacements included in the UCI - Tennis Replacement Reserve Inventory has been assigned to one of the 1 categories listed in TABLE CM3 below. This calculated data is a summary of data provided in the Three-Year Replacement Funding Report and Replacement Reserve Inventory. The accuracy of this data is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $74,141 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $91,589 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory in 2018 being accomplished in 2018 at a cost of $20,000.

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

2018 - COMPONENT METHOD CATEGORY FUNDING - TABLE CM3

CATEGORY	NORMAL ECONOMIC LIFE	REMAINING ECONOMIC LIFE	ESTIMATED REPLACEMENT COST	2018 BEGINNING BALANCE	2018 RESERVE FUNDING	2018 PROJECTED REPLACEMENTS	2018 END OF YEAR BALANCE
TENNIS COURTS	5 to 60 years	0 to 59 years	$163,028	$74,141	$13,948	$20,000	$68,089

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING REPORT

TABLE CM4 below details the allocation of the $49,654 Beginning Balance, as reported by the Association and the $41,935 of Replacement Reserve Funding calculated by the Cash Flow Method from 2016 to 2018, to the 14 Projected Replacements listed in the Replacement Reserve Inventory. These allocations have been made by Chronological Allocation, a method developed by Miller Dodson Associates, Inc., and outlined on Page CF1. The accuracy of the allocations is dependent upon many factors including the following critical financial data:

- Replacement Reserves on Deposit totaling $49,654 on January 1, 2016.
- Replacement Reserves on Deposit totaling $63,648 on January 1, 2017.
- Replacement Reserves on Deposit totaling $74,141 on January 1, 2018.
- Total Replacement Reserve funding (including the Beginning Balance) of $91,589 from 2016 to 2018.
- No expenditures from Replacement Reserves other than those specifically listed in the Replacement Reserve Inventory.
- All Projected Replacements scheduled in the Replacement Reserve Inventory from 2016 to 2018 being accomplished as scheduled in the Replacement Reserve Inventory at a cost of $23,500.

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

COMPONENT METHOD - THREE-YEAR REPLACEMENT FUNDING - TABLE CM4

Item #	Description of Projected Replacement	Estimated Replacement Costs	Allocation of Beginning Balance	2016 Reserve Funding	2016 Projected Replacements	2016 End of Year Balance	2017 Reserve Funding	2017 Projected Replacements	2017 End of Year Balance	2018 Reserve Funding	2018 Projected Replacements	2018 End of Year Balance
	TENNIS COURTS											
1	Tennis court, asphalt overlay	72,000	17,514	3,632		21,147	3,632		24,779	3,632		28,412
2	Tennis court, color coat	20,000	7,784	4,072		11,856	4,072		15,928	4,072	(20,000)	
3	Tennis court, crack sealing & repairs	3,500	3,292	104		3,396	104	(3,500)		58		58
4	Net post & footings	5,120	1,245	258		1,504	258		1,762	258		2,020
5	Nets	1,680		336		336	336		672	336		1,008
6	Chain link fence	17,767	4,322	896		5,218	896		6,115	896		7,011
7	Wind screen	17,136	3,335	3,450		6,785	3,450		10,235	3,450		13,686
8	Fiberglass practuce wall	4,100	399	206		605	206		810	206		1,016
9	Tennis court light, pole	8,750	6,811	323		7,134	323		7,457	323		7,781
10	Tennis court light, single head	3,360	1,962	233		2,195	233		2,428	233		2,661
11	Tennis court light, double head	1,540	899	107		1,006	107		1,113	107		1,220
12	Court entrance awning	1,325	860	93		953	93		1,046	93		1,139
13	Bench & storage shed (allowance)	1,000		167		167	167		333	167		500
14	Electric panels & lock box	5,750	1,231	116		1,347	116		1,463	116		1,578

CONDITION ASSESSMENT

General Comments. Miller - Dodson Associates conducted a Reserve Study at Ulmstead Club in March 2016. Ulmstead Club is in generally fair condition. 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. We have addressed all like item components collectively and separated the components into one of the three Reserve units; UCI - General, UCI - Nautical and UCI - Tennis, based on guidelines provide by the association.

General Condition Statements.

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

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

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

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

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

SITE COMPONENTS

Entrance Monuments. Brick masonry walls with painted wood signage have been erected as entrance monuments to the community at Shore Acres Road & Garywood Lane and at Shore Acres Road & Bayberry Drive. Because the brickwork has a very long life expectancy, we have excluded replacement of these walls. We have, however, included funding for the periodic tuckpointing of mortar joints as exposure to weather over an extended period of time will wash lime out of the mortar and weaken the joint. Periodic tuckpointing of these joints and replacement of damaged brick is required to extend the life of the wall. Unless the wall is damaged by settlement, this work is typically not required until the wall is approximately 35-40 years old. At that point we expect that approximately 10 percent of the surface area will require repair and that an additional 10 percent will require repair every 10 years thereafter.

Wooden signage has been attached to each of the entrance monuments to the community. The wooden signs are currently in fair condition, however they must be keep sealed to prevent deterioration and damage. We have included funding for the replacement of the signage and monument lighting systems based on national averages. Funds for painting and minor repairs to the existing signage are considered routine maintenance and are not included in the study.

Typical entrance monument

Wood monument sign, loose mortar


Broken concrete cap


Loose mortar in top course

Security Surveillance System. The Association installed security surveillance systems to monitor vehicular access to the community at the Garywood Lane and Bayberry Road entrance monuments; at the community building barn; at Pier #1 and at Pier#2 (to be installed in 2016). The security system consist of 4-channell recording device installed in job boxes and bullet cameras mounted on the poles. Outdoor security cameras are specifically designed with a wide field of view that enhances surveillance of large outdoor areas, have night vision capabilities and are weather resistant.


Security system control box


Typical security cameras

Because it is highly unlikely that all of the community's security cameras will fail and require replacement in the same given year of the study, we have programmed an allowance for the replacement of 33.3 percent of the inventory every 4 years, to reflect the incremental nature of this work, and a twenty year life expectancy for the recording devices and the job boxes. Our estimate of the approximate replacement cost is based on information provided by UCI and proposals submitted to UCI by Maryland Security Professionals.

Asphalt Pavement. The site includes asphalt pavement for vehicle access and parking. In general, the asphalt pavement is in fair to poor condition with multiple areas of defects. The Association maintains an inventory of 25,910 square feet of asphalt pavement, including the following areas:

Community Center Parking	9,610 sf	Ulmstead Point Park area parking	8,200 sf.
Pier #1 - access and parking	8,100 sf	Pier #2 - access drive	3,600 sf.

The defects noted include the following:

- Open Cracks. There are multiple locations where open cracks are allowing water to penetrate to the asphalt base and the bearing soils beneath the pavement. This water will erode the base accelerating the deterioration of the asphalt pavement. If the cracks have allowed the deterioration of the base materials and the bearing soil, the damaged areas should be removed and replaced. All other cracks should be cleaned and filled.

- Alligatoring. There are multiple locations where the asphalt has developed a pattern of cracking known as alligatoring. Alligatoring is the result of an unstable base under the asphalt. Shifting in the base causes the asphalt to crack and shift, forming the cracks that resemble the skin of an alligator. Once these cracks extend through the asphalt, they will allow water to penetrate to the base, accelerating the rate of deterioration. The only solution is to remove the defective asphalt and compact the base before new asphalt is installed.

- Cracking Along Edges. Sections of the asphalt pavement have developed cracks along their edges as a result of a lack of curbing to hold it in place. The pavement will continue to deteriorate with time.

- Concrete wheel stops. The community center parking area contains concrete wheel stops located along the centerline of the lot. Two of the wheel stops are broken.

As a rule of thumb, asphalt should be overlaid when approximately five percent of the surface area has become cracked or has failed. The normal service life of asphalt pavement is typically 20 years.

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

- Crack Sealing. All cracks should be sealed with an appropriate sealing compound to prevent water infiltration through the asphalt compound into the base. This repair should be done annually. This is an entirely different process from the seal coating discussed below. Crack sealing is normally considered a maintenance activity and is not funded from Reserves. Areas of extensive cracking or deterioration that cannot be made watertight by crack sealing should be cut out and patched.

- 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.

- 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, the crack sealing and cleaning of the asphalt as discussed above should be completed first.

Pricing used in the study is based on a two-inch overlay and reflects the current local market


Community center parking pavement


Pier #1 access gates and general pavement condition


Pier #2 access gates and general pavement condition

Wood Rail Fencing. The Association maintains an inventory of approximately 1400 linear feet of fencing including three rail wood fencing at the equestrian areas and split rail fencing along the parking areas at Ulmstead Point and Pier #1. The condition of the fencing varies from fair to poor. UCI reports that repair and replacement of the wood fencing at the equestrian areas will be conducted on an as-needed basis and funded by operating funds.


Fence at Pier #1


Fence at Ulmstead Point Park

NOTE: It is our understanding that fencing adjacent to individual residential lots are assumed to be the responsibility of the lot owners and excluded from this Study.

Ball Fields. The Association maintains two baseball backstops constructed of chain link fencing material. The condition of the fencing varies from good to fair. The defects noted include damaged metal fence fabric in several locations and plywood ball backboard is in marginal condition with delamination and splintered face.


Backstop fence


View of field area


Plywood backboard


Plywood delaminated

We have assumed that when these components are replaced, they will be replaced on an as needed basis with similar materials. We have estimated that these components have a remaining serviceable life of 15 years

Park Area. The community maintains a large park area that consist asphalt parking, a tot lot, swing sets, climbers, spring rides, benches, picnic tables and bar-b-que units. The tot lot includes a play structures, wood retaining wall equipment, wood borders and retaining walls, and sand surfacing. The shore line of the park is protected by an aluminum retaining wall system and rip rap. The facilities are in fair condition.

We noted that the playground does not have adequate protective surface under the equipment and around it. Random measurement of the sand surface indicates approximately 1 1/2" to 2" maximum depth under the play equipment. The areas under the swing set are protected with rubber mats. 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.



Tot lot with wood border


Spring rides and wood border


Rust on horizontal ladder



Metal play unit - rusted rails and supports

Swing set - rusted connectors and supports

Wood picnic tables and charcoal grills

Metal benches and picnic table

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.

Aluminum Bulkheads. The Ulmstead Point shoreline is stabilized with an aluminum bulkhead system and riprap. The Association maintains an inventory of approximately 560 square feet of aluminum bulkhead that is in marginal condition.

UCI had under consideration reinforcing the aluminum retaining wall with riprap. However, Anne Arundel County and the State of Maryland is working, though legislation, to implement a more natural bank stabilization technique called "living shorelines" that may prohibit the use of riprap in this area. Living shoreline projects utilize a variety of structural and organic materials, such as wetland plants, submerged aquatic vegetation, oyster reefs, coir fiber logs, sand fill, and stone. Living shorelines not only stabilization of the shoreline, they provide protection of surrounding riparian and intertidal environment, improve water quality through filtration of run-offs and create habitat for aquatic species.

When planning a living shorelines project, there are several factors that UCI should consider:

1. Analysis and evaluation of erosion rates, wave energy, prevailing wind and wave direction, vegetation, and soil type is necessary for design and permitting.

2. Shore erosion control is an integrated process that impacts both aquatic and upland resources. An authorization from the Maryland Department of the Environment (MDE) and a permit from a local government are required prior to starting a project. Since 2013, MDE's regulations require that a proposed Buffer Management Plan (BMP) also be submitted as part of the shore erosion control application.

3. Site preparation including clearing of debris and unstable vegetation, and failing bulkheads. All runoff issues must be identified and addressed prior to installation of the living shoreline treatments that could include planting riparian, marsh, and submerged aquatic vegetation; installing organic materials such as bio-logs and organic fiber mats; and constructing oyster reefs or "living breakwaters" that dissipate wave energy before it reaches the shore.

4. Post-construction monitoring and maintenance that typically includes scientific monitoring of restored habitat to gather information on the success of the project and maintenance activities that typically includes debris removal, replanting vegetation, adding additional sand fill, and ensuring that the organic and structural materials remain in place and continue to stabilize the shoreline


Aluminum bulkhead displaced


Aluminum bulkhead reinforced with wood rail

- Leaning. We found a number of areas where sections of the aluminum bulkhead are leaning. Leaning occurs when the pressure of the material being held in place by the bulkhead is sufficient to cause the wall to shift away from the vertical. Once a bulkhead starts to lean, it is at risk of failing and must be replaced.

- Failed Sections. We found a number of areas where individual members of the aluminum bulkhead have failed in the past and remedial repairs conducted. These sections can cause material behind the wall to pass through the wall and can lead to additional damage to the wall. Future repairs of failed members require replacement of that section of the bulkhead.

We have including funding for the installation of a living shoreline system based on our understanding of the proposed project. Our cost projections are based on preliminary assumptions. When a detailed proposal are available, the Reserve Study can be revised to include the repair cost and future replacement cost for the bulkheads.

Riprap. The community has installed stone riprap along the shoreline to protect against erosion. In general, the riprap is in good condition.

While riprap is considered to be a long-life item, with time and exposure the riprap can be undermined, silted, or washed away. Therefore we have included repairs to the riprap in the Reserve Analysis. Due to the incremental nature of the work, we have assumed that ten percent of the rip rap will require replenishment every ten years.


Wood platform and steps leading to rip rap shore line

COMMUNITY CENTER EXTERIORS

The Community Center building is a T-shaped barn structure that serves as a community center and stables / tack rooms for the adjacent equestrian areas. The building's primary structural components appear to be in good condition. The performance of the foundation was assessed by examining the exterior perimeter of the building and visible portions of the foundation for signs of differential settlement. No significant misalignment of exterior walls or window/door frames indicating significant differential settlement was observed.

Front elevation

Side elevation

No conditions were identified which are likely to require major structural capital repairs within the five year projection of this report

Concrete Masonry Units (CMU). The CMU walls on the buildings are in fair condition. Several cracks were observed in the exterior walls. The cracks are located primarily below windows and/or at other locations which are not indicative of significant structural defects. However, sealing of all cracks is needed to prevent water penetration and subsequent further deterioration which could become structurally significant. CMU walls is usually considered to be a life of structure item and therefore excluded from reserve funding. Because weather and other conditions result in the slow deterioration of the mortar in the joints, we have included funding in the Reserve Analysis for tuckpointing.

Broken CMU units at stable entrance

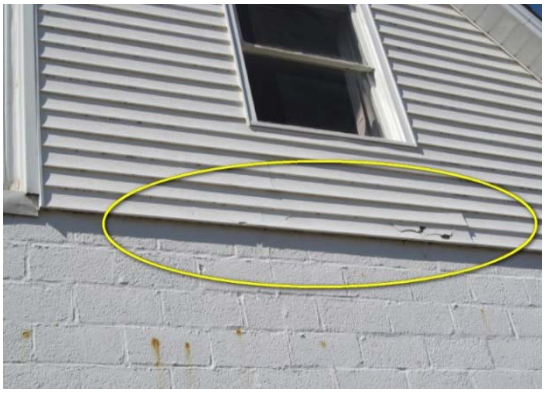
Cracks in CMU wall (minor but need to monitor)

Tuckpointing is the process of raking and cutting out damaged sections of mortar and replacing them with new mortar. When mortar joints become damaged, they allow water to gain access to the brick joints. Repeated freeze-thaw cycles gradually increase the damage to the mortar joints, allowing even more moisture into the brick joints. If allowed to progress sufficiently, the CMU surfaces can spall or entire CMU can be loosened. For the Reserve Analysis, we have assumed that five percent of the CMU will require tuckpointing every ten years.

Vinyl Siding. The vinyl siding on the building is in fair 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. The defects we noted include the following:

- Loose and torn sections. The vinyl siding has a number of loose and torn sections of siding that appears to have been caused by vandalism.

- Dents. The vinyl siding has a number of dents that appear to have been caused by objects, such as rocks and golf balls, thrown against it.



Asphalt Shingle Roofing, Cupola and Dormer Roofing. The asphalt shingle roofs are in fair condition, with several loose / detached shingles. We have estimated the remaining useful life of the roofs based on the conditions seen at the site as well as the age of the roofs. We have assumed that when the roofs eventually will require replacement, all roofs will be replaced with 25-year roofs. We have assumed that the gutters and downspouts will be replaced when the roofs are replaced.

View of front roof, dormer, and cupolas

Loose shingle

We recommend the periodic inspection of the roof by a professional roofing consultant to detect early signs of failure.

Wood Deck, Stairs and Railing. The wood decks, stairs and railings (fire escapes) can be difficult to maintain. By design a large portion of the deck and stair area contain horizontal surfaces. Water tends to stand on the surfaces and soak into the wood. As the sundries and pulls the moisture out of the wood, the wood shrinks and cracks. The wood decking material as well as the handrails should be sealed every two to three years.

Ulmstead Club has opted to conduct routine maintenance and repairs from the operating budget. We have included funding for the total replacement of the wooden structures based on industry rated life expectancies.


View of structure bolted to bldg.


Safety railing detached

Equestrian Area Grading and Drainage. The community has experienced significant erosion and damage to the wood retaining wall along the north side of the equestrian show ring. In 2014 the Association commissioned a Feasibility Study conducted by Bay Engineering, Inc. to address these problems. Accordingly, we have provided an estimate of the approximate replacement cost based on information provided by the Association and the general design as listed in Option #2 of the Bay Engineering Study dated November 2014.

View of equestrian area


Erosion inside equestrian ring


Erosion outside equestrian ring


Failed retaining wall

We recommend the UCI consider one of the segmental block retaining wall systems instead of a concrete retaining wall. These systems do not require waterproofing and if over time the wall experiences movement, sections of the walls can be re-stacked at a very small portion of the cost of a new wall. Our replacement cost data base indicates that the average cost for a segmental block retaining wall under 4 feet tall is $45.00 per square foot and is comparable to poured concrete retaining wall cost. Segmental block retaining walls have a service life of 80 years or more.

As a general source of information about retaining walls, we offer several links from our website at http://mdareserves.com/resources/links/site-components.

We do not recommend the use of flexible corrugated perforated plastic drain pipe for a surface water drainage system because it cannot be cleaned out if roots, soil, leaves or an animal plugs it up. The commonly used drain line snake will cut through the flexible drainage pipe. We recommend the use of 4" rigid PVC drainage pipe. The rigid PVC drain pipe can be cleaned out by flushing or with a drain line snake. Another major advantage of the rigid PVC drain pipe is that allows for easy installation of the drain pipes at the recommended slope. The drainage pipe must slope slightly downhill at 1/8" to 1/4" per foot proper drainage. This is the same as the commonly recommended 1% slope. The drainage should be installed on a gravel bed in the bottom of the trench and it is very easy to move this gravel around to properly slope the drain pipe.

We have modified the Bay Engineering option #2 cost estimates by using segmental block at a cost of $45.00 per square foot (the average cost for a wall under 4 feet tall and comparable to concrete wall cost); solid PVC piping; and assumed that if Bay Engineering design criteria is followed the engineering fee can be reduced to $2,000.00 and construction mobilization reduced to $2,500.00, in our projections.

COMMUNITY CENTER INTERIORS

The lower front level of the community center has a furnished lobby room, ladies' rest room, men's rest room, and storage rooms. The upper level consists of two large rooms that can be set up for social functions and meetings, storage room, fireplace and bar areas. We have included funding for the replacement of three windows and carpet in the east upper room. UCI reports that the various components (furnishings, restroom renovation, ceiling tile, etc.) will be replaced on as needed basis from operating funds, or when funds are available. The structural components such as concrete slabs, wall and roof framing are considered life of the property items and are excluded from this Study.

Lobby area

View of upper west room

View of upper east room, windows to be replaced

View of upper east room, carpet to be replaced

The rear of the community center is set up as stables, tack room and storage areas. It is our understanding that the various components will be replaced on as needed basis (based on our conversations with Mr. Paquin0 from operating funds.

Emergency Light Fixtures. The building uses battery powered light fixtures for emergency lighting in the event of a power outage. The fixtures are equipped with LED light sources. The fixtures are in good condition. Fixtures of this type have a typical service life of 20 years.

The use of emergency light fixtures is required on an irregular and infrequent basis. Frequently, fixtures fail to operate when needed due to failed components that have gone unnoticed. Therefore, we recommend that the Association have all emergency light fixtures tested on a regular basis; typically every three to six months.

Exit Lights. The building uses illuminated exit lights with emergency lights at each of the exits. The exit lights use incandescent light sources. The general condition of the building's exit lights is good.

Electrical System Components. The electrical system is in satisfactory condition. The incoming power is of sufficient amperage and voltage for the current occupancy and electrical loads. The representative sampling of switches, outlets, and panelboards did not reveal any non-functional conditions.

We have provided funding for the normal replacement of the electrical distribution panels. UCI has opted to replace the electric fixtures and switches on an-as-needed basis from operating funds. Our estimates are based on standard life cycles and are based on replacement with like items.

Heat Pumps. There are four heat pumps that serve the building. We have included two items in the Reserve Analysis for the heat pumps; the heat pump system and the system's compressor. For the system, we have assumed a service life of 30 years. For the system's compressor, we have assumed a service life of 15 years. Two units were installed in 2010 and two units were installed in 2011.

Sprinkler (fire suppression) System. The building is equipped with a fire suppression system. The system is tagged with an appropriate 3rd party inspection sticker and our cursory observations of the primary components did not reveal any defects. However, evaluation and testing of this system was beyond the scope of the inspection. Consultation with the firm which has been servicing the equipment is recommended.

Plumbing System Components. Water service appears adequately sized for the current use of the facility. Sufficient water pressure and functional drainage was confirmed at the representatively inspected fixtures. Assessment of the plumbing was assessed by checking fixture operation, drainage, and vent function - most of the actual plumbing components are fully concealed from view.

We have provided funding for the normal replacement of the water heater. UCI has opted to replace the plumbing fixtures and accessories on an-as-needed basis from operating funds. Our estimates are based on standard life cycles and are based on replacement with like items.

Park Area. The community maintains a large park area that consist asphalt parking, a tot lot, swing sets, climbers, spring rides, benches, picnic tables and bar-b-que units. The tot lot includes a play structures, wood retaining wall equipment, wood borders and retaining walls, and sand surfacing. The shore line of the park is protected by an aluminum retaining wall system and rip rap. The facilities are in fair condition.

We noted that the playground does not have adequate protective surface under the equipment and around it. Random measurement of the sand surface indicates approximately 1 1/2" to 2" maximum depth under the play equipment. 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.

Tot lot with wood border

Spring rides and wood border

Rust on horizontal ladder

Metal play unit - rusted rails and supports

Swing set - rusted connectors and supports

Wood picnic tables and charcoal grills

Metal benches and picnic table

Aluminum Bulkheads. The Ulmstead Point shoreline is stabilized with an aluminum bulkhead system and riprap. The Association maintains an inventory of approximately 560 linear feet of aluminum bulkhead. The condition of the bulkhead walls ranges from fair to poor. The defects noted include the following:


Aluminum bulkhead displaced


Aluminum bulkhead reinforced with wood rail

- Leaning. We found a number of areas where sections of the aluminum bulkhead are leaning. Leaning occurs when the pressure of the material being held in place by the bulkhead is sufficient to cause the wall to shift away from the vertical. Once a bulkhead starts to lean, it is at risk of failing and must be replaced.

- Failed Sections. We found a number of areas where individual members of the aluminum bulkhead have failed in the past and remedial repairs conducted. Future repairs of failed members require replacement of that section of the bulkhead.

UCI was developing planes for the placement of riprap stone in front of the existing bulkheads. The process would not only reinforce the existing bulkheads but would reduce future maintenance cost. However, Anne Arundel County and the State of Maryland is working to implement a more natural bank stabilization technique called “living shorelines.” Living shoreline projects utilize a variety of structural and organic materials, such as wetland plants, submerged aquatic vegetation, oyster reefs, coir fiber logs, sand fill, and stone. Living shorelines not only stabilization of the shoreline, they provide protection of surrounding riparian and intertidal environment, improve water quality through filtration of run-offs and create habitat for aquatic species. When planning a living shorelines project, there are several factors that UCI should consider:

5. Analysis and evaluation of erosion rates, wave energy, prevailing wind and wave direction, vegetation, and soil type.

6. Obtain permits from county, state and federal regulatory agencies.

7. Site preparation including clearing of debris and unstable vegetation, and failing bulkheads. All runoff issues must be identified and addressed prior to installation of the living shoreline treatments that could include planting riparian, marsh, and submerged aquatic vegetation; installing organic materials such as bio-logs and organic fiber mats; and constructing oyster reefs or “living breakwaters” that dissipate wave energy before it reaches the shore.

8. Post-construction monitoring and maintenance that typically includes scientific monitoring of restored habitat to gather information on the success of the project and maintenance activities that typically includes debris removal, replanting vegetation, adding additional sand fill, and ensuring that the organic and structural materials remain in place and continue to stabilize the shoreline

We have including funding for the installation of a “living shoreline”, based on our understanding of the proposed project. Our cost projections are based on preliminary assumptions. It is our recommendation that the UCI obtains written proposals detailing the scope of the work to be conducted and all materials to be used should be itemized. When a detailed proposal is available, the Reserve Study can be revised to include the repair cost and future replacement cost for the Ulmstead Point shoreline.

Riprap. The community has installed stone riprap along the shoreline to protect against erosion. In general, the riprap is in good condition.

While riprap is considered to be a long-life item, with time and exposure the riprap can be undermined, silted, or washed away. Therefore we have included repairs to the riprap in the Reserve Analysis. Due to the incremental nature of the work, we have assumed that ten percent of the rip rap will require replenishment every ten years.

Wood platform and steps leading to rip rap shore line

Wood Piers. The Association operates three wood piers. The piers are similarly constructed from pressure treated lumber and rest on wood pilings. The piers range in age from 20+ years old to less than 5 years old.

- Wood Pier Decking. The wood decking on the piers, the finger piers, and the wood walk 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.

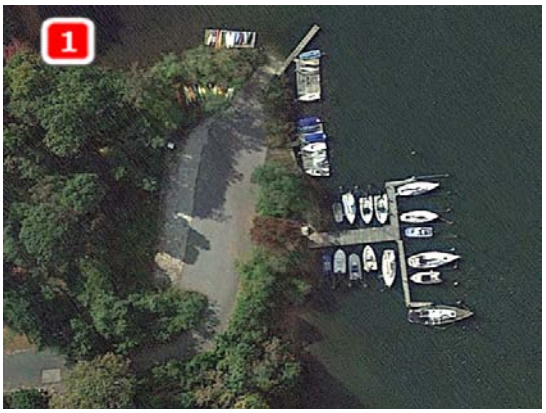
- Pier Structure. The structure consists of pressure treated wood piles on 10 and 15 foot centers with stringers spanning the distance between piles. We have assumed that when the pier structure will require replacement, all piling also will be replaced.

- 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.

- Pier Utility Systems. The pier includes electrical supply, water supply, and sanitary sewer utility systems. We have assumed that the utility systems will be removed and replaced when the pier structure is replaced. We have also assumed that the systems will be replaced at the midpoint of the service life of the pier structure.

We have divided the pier and docks into three areas in the study. We have used the cost estimates provided by Schofield LLC as the basis for our cost projections. It is recommended that all piers be inspected at least once each year to identify damage to pilings, structural members, surface boards, and railings.

Pier #1. Pier #1 consists of an asphalt parking area, gravel parking, concrete boat launching ramp, ramp pier, main pier with branch and finger piers and three floating platforms



- The pier structures is in fair to poor condition
- The freestanding (mooring) pilings are generally in fair condition.
- The main wood pier decking is in fair condition, with several deck boards cracked and split.
- The pier electrical and plumbing systems are in fair condition.
- The boat ramp wood pier is damaged and unsafe.
- The floating platforms are very poor condition with

damaged structural framing and decking.

- Wood platform and ramp to the floating platform is in poor condition
- The concrete and stone bulkheads are in fair condition with a number of broken sections
- The concrete walk and steps is in fair condition
- The wood fencing is in poor condition
- Canoe racks, constructed of 10” pilings cover with outdoor carpet, are in good condition
- The asphalt pavement is in fair condition
- The gravel parking area is in useable condition.

Pier #1 main pier

Pier #1 branch pier

Damaged stringer

Ramp pier damaged by ice uplift

Typical floating platform w/ damaged deck & structure

Damaged decking on floating platform


Canoe rack


Deteriorated wood platform and ramp

Pier #2. Pier #2 **c**onsists of an asphalt entrance drive, gravel parking area, storage shed, canoe racks, and a 76 slip marina installed in 2012. The pile supported timber dock is constructed of Southern Yellow Pine (SYP), 12" taped and CL B piles, 3" X 10" framing, 3" X 8" bracing and 2" X 8" decking. The marina consist of;

- 180 linear feet of 10' wide pier
- 192 linear feet of 8' wide pier
- 636' linear feet of 6' pier
- 440 linear feet of 3' pier
- 15' X 25' utility platform
- 105 mooring piles
- 44 "Hatteras" Eaton power pedestals w/ photocell 360 degree fluorescent lights
- Hose bibs w/potable water attached to each power pedestal
- Electrical distribution panels and transformers. 1 new 240V/400 amp main panel; 1 new 350 amp NEMA 3R sub panel; 2 reused 200 amp NMA 3R sub-panels
- Fire standpipes, 8 w/ 2 ½ " brass fire hose caps, Siamese 2 ½ " dual inlet connections
- "SanSailor Sentinel" sewage pump-out station


Main pier w/ standpipe


Utility platform and wood enclosure


Branch and finger piers - Eaton power pedestals


Electrical sub-panel


Gravel parking area


Storage shed


Emergency electrical shut off access blocked by door


Canoe Racks

Pier #3. Pier #3 consists of an approximate 450 square foot pier, boatlift, and a series of protective wave breaks constructed of approximately 2600 square feet of stone riprap. Access to pier #3 is by a grass pathway from Lynch Drive lading to a gravel path down to the dock.

- The wood pier decking is in fair condition with several deck board cracked and loose.
- The pier structures is in fair condition
- The freestanding (mooring) pilings are generally in fair condition.
- The pier electrical and plumbing system are in fair condition.
- The pathway is eroded and in need of addition gravel


Pier and boat lift


Decking and pier weathered


Electric panel's

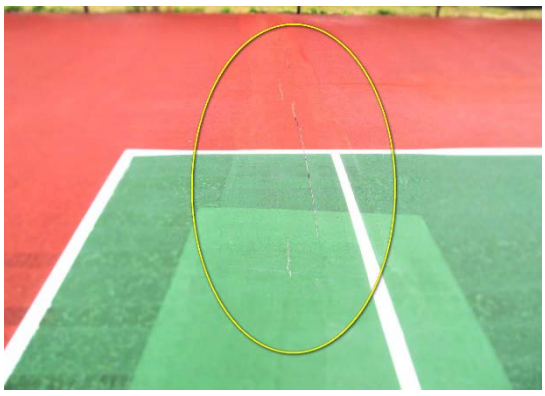

Stone wave breaks

NOTE: We have assumed that the flat stone paved area and tables are owned by the resident adjacent to the pier and excluded them from this Study.

Tennis Courts - Asphalt. The community maintains four tennis courts. The overall condition of these courts is good (resurfaced in 2010). Listed below are the major components of the tennis court facilities:

- Asphalt Pavement (base layer). The asphalt pavement for the tennis court is in fair condition with a number of cracks and splits that extend into the playing surface. We have assumed a service life of 20 years for the asphalt. The courts were resurfaced in 2010.


View of courts


Cracks in surface

- Color Coat. The color coat on the tennis courts is in fair condition with areas of wear and signs of previous repairs in its finish.

Color coat faded - area of previous repairs

Net and post w/ plastic bench

- 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.

- Electric system. The electrical distribution panels, meter and timer are located in a metal enclosure located to the left of the court entrance. The system appear to be in good condition, however one of the breakers in the 200 amp panel appears to be improper and should be replaced.

Electrical panels

Pole lights

- Lighting System. The tennis court lighting system was not on at the time of our site visit. We understand that the lighting system is in good operating condition. The light post are rusting.

- Fencing. The fencing installed around the tennis courts is chain link and in fair condition. There were no significant noted defects. We did observe corrosion on the post and rails. We have assumed that the fencing will be replaced when the asphalt pavement is replaced. We recommend that the fencing be painted / repaired to extend its economic life.

Entry gate and canopy

Fence with loose windscreen

- Wind Screen. The wind screen installed on the fencing at the tennis courts is in fair condition with several loose and torn areas.

- Backboard. The 20’ X 10’ high fiberglass backboard is in good condition.

Fiberglass backboard

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. O ur 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

Intentionally Left Blank

1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

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

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

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

2. REPLACEMENT RESERVE STUDY

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

- Replacement Reserve Study Introduction. The introduction provides a description of the property, reviews the intent of the Replacement Reserve Study, and lists documents and site evaluations upon which the Replacement Reserve Study is based.

- Section A Replacement Reserve Analysis. Many components owned by the Association have a limited life and require periodic replacement. Therefore, it is essential the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and value of the community. In conformance with American Institute of Certified Public Accountant guidelines, a Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves by two generally accepted accounting methods; the Cash Flow Method and the Component Method. Miller - Dodson provides a replacement reserve recommendation based on the Cash Flow Method in Section A, and the Component Method in the Appendix of the report.

- Section B Replacement Reserve Inventory. The Replacement Reserve Inventory lists the commonly owned components within the community that require periodic replacement using funding from Replacement Reserves. The Replacement Reserve Inventory also provides information about components excluded from the Replacement Reserve Inventory whose replacement is not scheduled for funding from Replacement Reserves.

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

- Section C Projected Annual Replacements. The Calendar of Projected Annual Replacements provides a year-by-year listing of the Projected Replacements based on the data in the Replacement Reserve Inventory.

- Section D Condition Assessment. Several of the items listed in the Replacement Reserve Inventory are discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed during our visual evaluation.

- The Appendix is provided as an attachment to the Replacement Reserve Study. Additional attachments may include supplemental photographs to document conditions at the property and additional information specific to the property cited in the Conditions Assessment (i.e. Consumer Product Safety Commission, Handbook for Public Playground Safety, information on segmental retaining walls, manufacturer recommendations for asphalt shingles or siding, etc). The Appendix also includes the Accounting Summary for the Cash Flow Method and the Component Method.

3. METHODS OF ANALYSIS

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

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

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

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

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

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

4. REPLACEMENT RESERVE STUDY DATA

- Identification of Reserve Components. The Reserve Analyst has only two methods of identifying Reserve Components; (1) information provided by the Association and (2) observations made at the site. It is important that the Reserve Analyst be provided with all available information detailing the components owned by the Association. It is our policy to request such information prior to bidding on a project and to meet with the individuals responsible for maintaining the community after acceptance of our proposal. After completion of the Study, the Study should be reviewed by the Board of Directors, individuals responsible for maintaining the community, and the Association's accounting professionals. We are dependent upon the Association for correct information, documentation, and drawings.

- Unit Costs. Unit costs are developed using nationally published standards and estimating guides and are adjusted by state or region. In some instances, recent data received in the course of our work is used to modify these figures.

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

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

5. DEFINITIONS

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

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

Cash Flow Analysis. See Cash Flow Method, above.

Component Analysis. See Component Method, above.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

What is a Reserve Study?
Who are we?

http://bcove.me/nc0o69t7

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

http://bcove.me/stt373hj

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

http://bcove.me/81ch7kjt

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

http://bcove.me/ixis1yxm

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

http://bcove.me/81ch7kjt

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

http://bcove.me/fazwdk3h

clients?

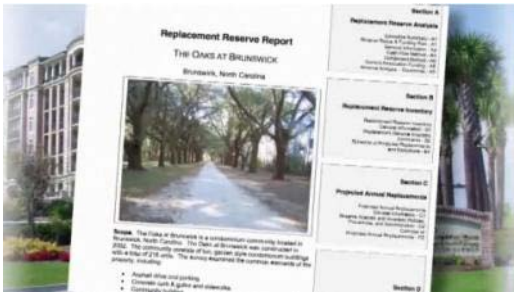
What is my role as a Board Member?
Will a Reserve Study meet my community's needs?

http://bcove.me/n6nwnktv

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

http://bcove.me/2vfih1tz

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



http://bcove.me/wb2fugb1

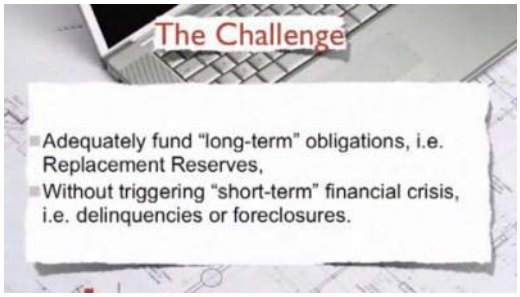
Where do the numbers come from?
Cumulative expenditures and funding, what?

http://bcove.me/7buer3n8

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

http://bcove.me/s2tmtj9b

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



http://bcove.me/iqul31vq