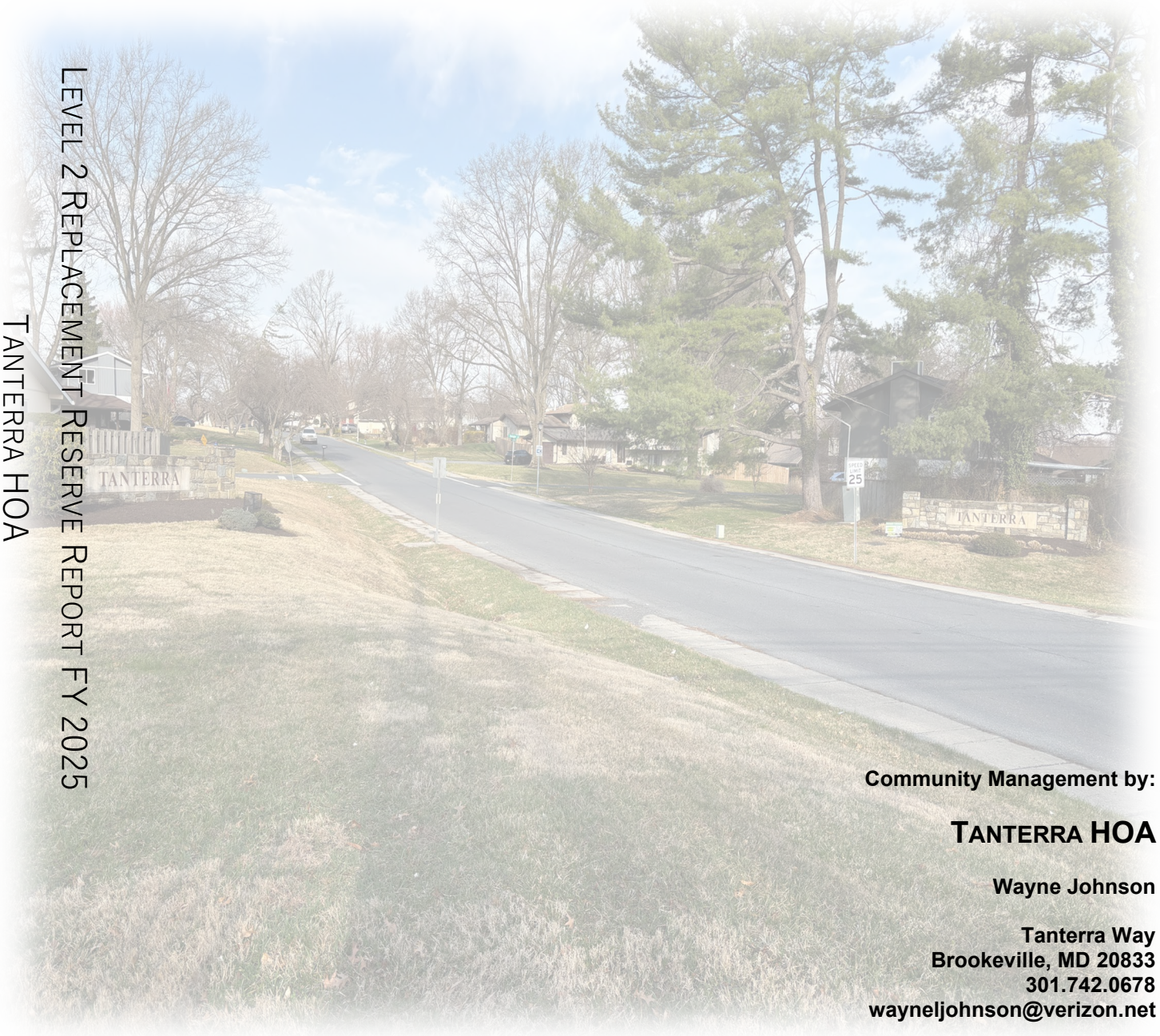
# LEVEL 2 REPLACEMENT RESERVE REPORT FY 2025
# TANTERRA HOA




LEVEL 2 REPLACEMENT RESERVE REPORT FY 2025

TANTERRA HOA

millerdodson
Capital Reserve Consultants

**Community Management by:**

**TANTERRA HOA**

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# REPLACEMENT RESERVE REPORT

## TANTERRA HOA

BROOKEVILLE, MARYLAND
May 01, 2025
Revised June 26, 2025
Revised July 21, 2025

**Description.** Tanterra is a community of single-family homes located in Brookeville, Maryland. Constructed between 1975 and 1980, the community consists of 395 single-family units. The survey examined the common elements of the property, including:

- Entry monuments
- Roadway and parking area
- Curb and gutter, sidewalk, steps, and other flatwork
- Fencing
- Water and sanitary sewer laterals and septic system
- Stormwater management
- Swimming and wading pool to include mechanical systems
- Tennis/pickleball court and roller hockey court
- Building exteriors to include the roofs, siding and trim, and gutters and downspout
- Building interiors to include restrooms, locker rooms, mechanical/electrical systems

**EXECUTIVE SUMMARY**
This Reserve Study has been prepared for the Tanterra HOA for the Fiscal Year 2025 covering the period from January 1, 2025 to December 31, 2025. The Replacement Reserves Starting Balance as of January 1, 2025 is reported to be $124,359. The reported Current Annual Funding for Reserves is $47,200. The Recommended Annual Reserve Funding level for 2025 is $50,443.

The Board has been prudent in increasing the Annual Reserve Funding levels since the last Reserve Study. Higher-than-anticipated inflation rates over the past several years have played a significant factor in the increased Recommended Funding above.

We recommend that the Association increase its Reserve Funding level.

MillerDodson welcomes the opportunity to answer questions or to discuss this Reserve Study in more detail should the Board so desire.

**Current Funding.** The Starting Balance and Current Annual Reserve Funding figures have been supplied by the managing agent and/or Board of Directors. 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.

**Level of Service.** This study has been performed as a Level 2 Update with Site Visit/On-Site Review as defined by the Community Associations Institute's, National Reserve Study Standards. As such, the component inventory is based on the study that was performed by MillerDodson Associates, 2021. This inventory was adjusted to reflect changes provided by the Community Manager and/or the Board of Directors, or adjustments made based on the site visit and visual assessment performed by the Analyst. The analysis, including fund status and funding plan, is developed from the adjusted inventory.

To aid in the understanding of this report and its concepts and practices, on our website, 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 website at millerdodson.com.

**Purpose.** The purpose of this Replacement Reserve Study is to provide Tanterra HOA (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 reported current funding and the recommended funding based on the Cash Flow Method. An Executive Summary of these calculations is provided on Page A1.

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

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

- Miller+Dodson performed a visual evaluation commencing on March 20, 2025 to determine the remaining useful life and replacement cost for the commonly owned elements of this facility.

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

**To-Scale Drawings.** Site and building plans were not used in the development of this study. We recommend the Association assemble and maintain a library of site and building plans of the entire facility. Record drawings should be scanned into an electronic format for safe storage and ease of distribution. Upon request for a nominal fee, Miller+Dodson can provide scanning services.

**Acknowledgment.** Miller+Dodson Associates would like to acknowledge the assistance and input of Wayne Johnson, HOA Vice President, who provided very helpful insight into the current operations of the property.

**Analyst's Credentials.** Mr. John R. (John Ray) Greco holds a Bachelor of Science Degree in Civil Engineering from the United States Air Force Academy and a Master's Degree in Business Administration from the University of Utah. Mr. Greco is a registered Professional Engineer in the State of Colorado. He has over 25 years of engineering experience. Mr. Greco has managed the design, construction, maintenance, and risk management of numerous commercial facilities throughout the United States.

Respectfully Submitted,

millerdodson
CAPITAL RESERVE CONSULTANTS

*John Greco*
John Greco

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# SECTION A - FINANCIAL ANALYSIS

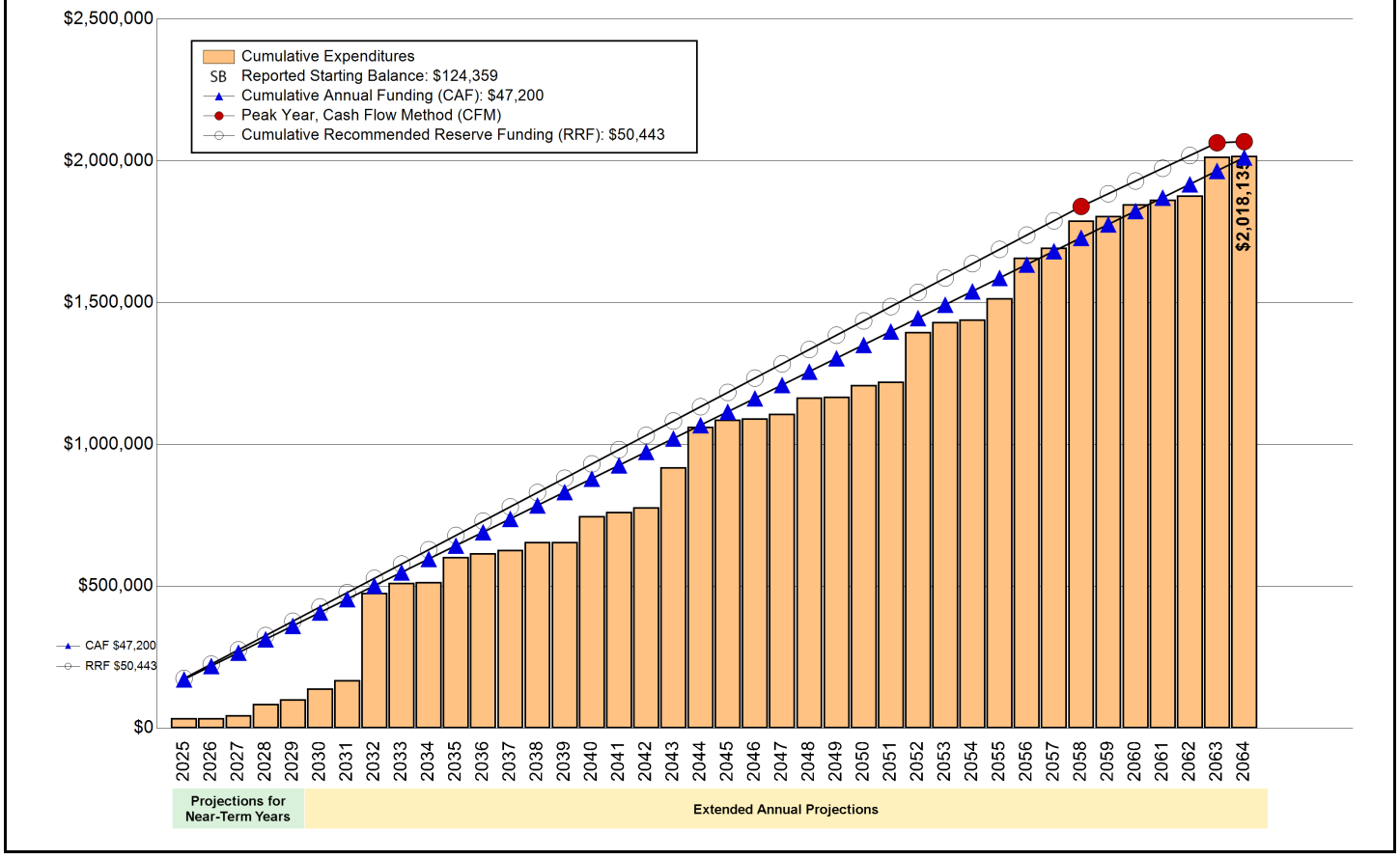
The Tanterra HOA Replacement Reserve Analysis uses the Cash Flow Method (CFM) to calculate Replacement Reserve funding for the periodic replacement of the 82 Projected Replacements identified in the Replacement Reserve Inventory.

**$50,443** **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR THE STUDY YEAR, 2025**
$10.64 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 A.5.

Tanterra HOA reports a Starting Balance of $124,359 and Annual Funding totaling $47,200, which is inadequate to fund projected replacements starting in 2032. See Page A.3 for a more detailed evaluation.

**#1 - Cumulative Replacement Reserve Funding and Expenditures Graph**




The Board has been prudent in increasing the Annual Reserve Funding levels since the last Reserve Study. Higher-than-anticipated inflation rates over the past several years have played a significant factor in the increased Recommended Funding above.

We recommend that the Association increase its Reserve Funding level.

## REPLACEMENT RESERVE ANALYSIS - GENERAL INFORMATION

The Tanterra HOA Replacement Reserve Analysis calculations of recommended funding of Replacement Reserves by the Cash Flow Method (CFM) 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.

**2025** **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, 2025.

**40 Years** **STUDY PERIOD**

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

**$124,359** **STARTING BALANCE**

The Association reports Replacement Reserves on Deposit totaling $124,359 at the start of the Study Year.

**Level Two** **LEVEL OF SERVICE**

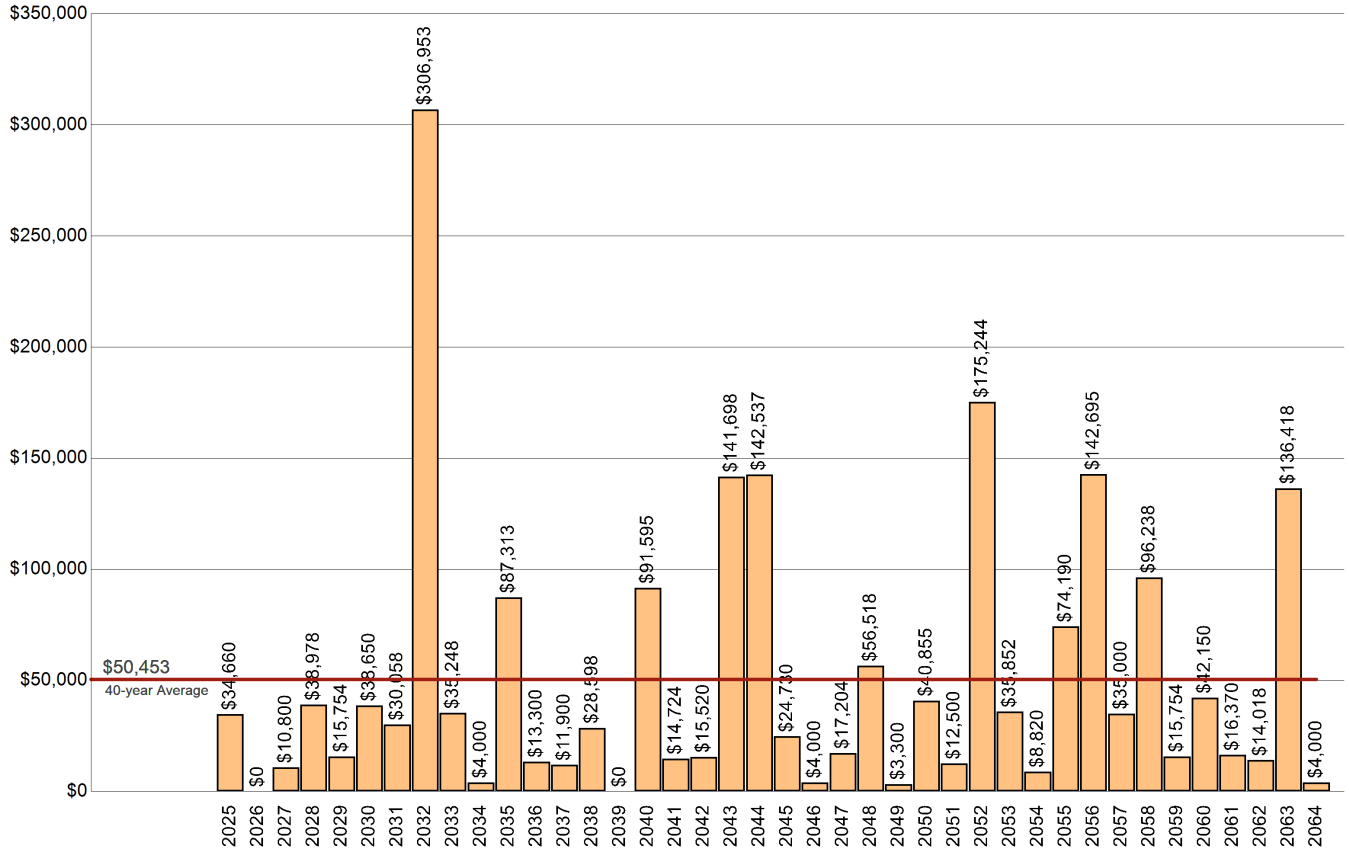
The Replacement Reserve Inventory has been developed in compliance with the National Reserve Study Standards for a Level Two Study, as defined by the Community Associations Institute (CAI).

**$2,018,135** **REPLACEMENT RESERVE INVENTORY - PROJECTED REPLACEMENTS**

The Tanterra HOA Replacement Reserve Inventory identifies 82 items that will require periodic replacement, that are to be funded from Replacement Reserves. We estimate the cost of these replacements will be $2,018,135 over the 40-year Study Period. The Projected Replacements are divided into 5 major categories starting on Page B.3. Pages B.1-B.2 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 $50,453. Section C provides a year by year Calendar of these expenditures.



## 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 A.4 and A.5. The Projected Replacements listed on Page C.2 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 A.5.

## 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 A.5.

## ANNUAL EXPENDITURES AND CURRENT FUNDING

The annual expenditures that comprise the $2,018,135 of Projected Expenditures over the 40-year Study Period and the impact of the Association continuing to fund Replacement Reserves at the current level are detailed in Table 3.

### #3 - Table of Annual Expenditures and Current Funding Data - Years 0 through 39

| Year | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|
| Starting Balance | $124,359 | | | | | | | | | |
| Projected Replacements | ($34,660) | | ($10,800) | ($38,978) | ($15,754) | ($38,650) | ($30,058) | ($306,953) | ($35,248) | ($4,000) |
| Annual Deposit | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 |
| End of Year Balance | $136,900 | $184,100 | $220,500 | $228,722 | $260,168 | $268,719 | $285,861 | $26,108 | $38,061 | $81,261 |
| Cumulative Expenditures | ($34,660) | ($34,660) | ($45,460) | ($84,437) | ($100,191) | ($138,841) | ($168,899) | ($475,851) | ($511,099) | ($515,099) |
| Cumulative Receipts | $171,559 | $218,759 | $265,959 | $313,159 | $360,359 | $407,559 | $454,759 | $501,959 | $549,159 | $596,359 |
| **Year** | **2035** | **2036** | **2037** | **2038** | **2039** | **2040** | **2041** | **2042** | **2043** | **2044** |
| Projected Replacements | ($87,313) | ($13,300) | ($11,900) | ($28,598) | | ($91,595) | ($14,724) | ($15,520) | ($141,698) | ($142,537) |
| Annual Deposit | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 |
| End of Year Balance | $41,148 | $75,048 | $110,348 | $128,950 | $176,150 | $131,756 | $164,232 | $195,912 | $101,414 | $6,077 |
| Cumulative Expenditures | ($602,411) | ($615,711) | ($627,611) | ($656,209) | ($656,209) | ($747,804) | ($762,528) | ($778,048) | ($919,746) | ($1,062,283) |
| Cumulative Receipts | $643,559 | $690,759 | $737,959 | $785,159 | $832,359 | $879,559 | $926,759 | $973,959 | $1,021,159 | $1,068,359 |
| **Year** | **2045** | **2046** | **2047** | **2048** | **2049** | **2050** | **2051** | **2052** | **2053** | **2054** |
| Projected Replacements | ($24,730) | ($4,000) | ($17,204) | ($56,518) | ($3,300) | ($40,855) | ($12,500) | ($175,244) | ($35,852) | ($8,820) |
| Annual Deposit | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 |
| End of Year Balance | $28,547 | $71,747 | $101,743 | $92,426 | $136,326 | $142,671 | $177,371 | $49,328 | $60,676 | $99,056 |
| Cumulative Expenditures | ($1,087,012) | ($1,091,012) | ($1,108,216) | ($1,164,734) | ($1,168,034) | ($1,208,888) | ($1,221,388) | ($1,396,632) | ($1,432,483) | ($1,441,303) |
| Cumulative Receipts | $1,115,559 | $1,162,759 | $1,209,959 | $1,257,159 | $1,304,359 | $1,351,559 | $1,398,759 | $1,445,959 | $1,493,159 | $1,540,359 |
| **Year** | **2055** | **2056** | **2057** | **2058** | **2059** | **2060** | **2061** | **2062** | **2063** | **2064** |
| Projected Replacements | ($74,190) | ($142,695) | ($35,000) | ($96,238) | ($15,754) | ($42,150) | ($16,370) | ($14,018) | ($136,418) | ($4,000) |
| Annual Deposit | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 | $47,200 |
| End of Year Balance | $72,066 | ($23,429) | ($11,229) | ($60,266) | ($28,820) | ($23,770) | $7,060 | $40,242 | ($48,976) | ($5,776) |
| Cumulative Expenditures | ($1,515,493) | ($1,658,188) | ($1,693,188) | ($1,789,425) | ($1,805,179) | ($1,847,329) | ($1,863,699) | ($1,877,717) | ($2,014,135) | ($2,018,135) |
| Cumulative Receipts | $1,587,559 | $1,634,759 | $1,681,959 | $1,729,159 | $1,776,359 | $1,823,559 | $1,870,759 | $1,917,959 | $1,965,159 | $2,012,359 |

## EVALUATION OF CURRENT FUNDING

The evaluation of Current Funding (Starting Balance of $124,359 & annual funding of $47,200), is done in today's dollars with no adjustments for inflation or interest earned on Replacement Reserves. The evaluation assumes Replacement Reserves will only be used for the 82 Projected Replacements identified in the Replacement Reserve Inventory and that the Association will continue Annual Funding of $47,200 throughout the 40-year Study Period.

Annual Funding of $47,200 is approximately 94 percent of the $50,443 recommended Annual Funding calculated by the Cash Flow Method for 2025, the Study Year.

See the Executive Summary for the Current Funding Statement.

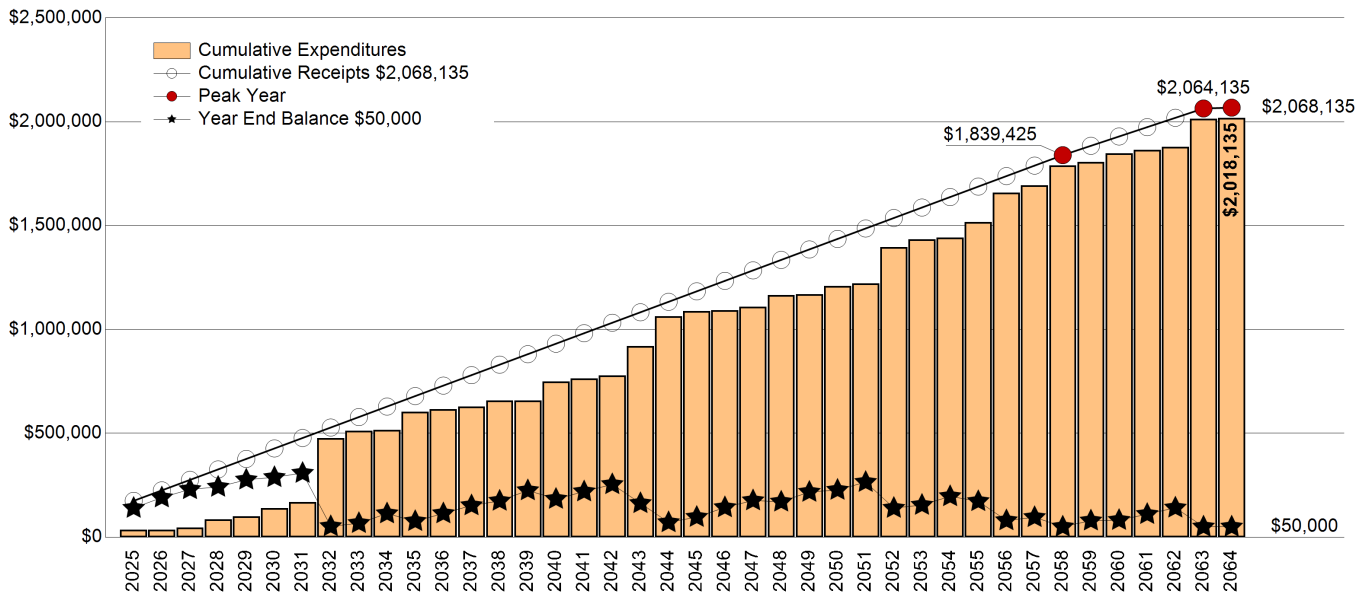
# CASH FLOW METHOD FUNDING

**$50,443** **RECOMMENDED REPLACEMENT RESERVE FUNDING FOR 2025**
$10.64 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 2058 with Replacement Reserves on Deposit dropping to the Minimum Balance after the completion of $1,789,425 of replacements from 2025 to 2058. Recommended funding is anticipated to decline in 2059. Peak Years are identified in Chart 4 and Table 5.
- **Threshold (Minimum Balance).** The calculations assume a Minimum Balance of $50,000 will always be held in reserve, which is calculated by rounding the 12-month 40-year average annual expenditure of $50,453 as shown on Graph #2.
- **Cash Flow Method Study Period.** Cash Flow Method calculates funding for $2,018,135 of expenditures over the 40-year Study Period. It does not include funding for any projects beyond 2064 and in 2064, the end of year balance will always be the Minimum Balance.

## #4 - Cash Flow Method - Graph of Cumulative Receipts and Expenditures - Years 0 through 39




## #5 - Cash Flow Method - Table of Receipts & Expenditures - Years 0 through 39

| Year | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 |
|---|---|---|---|---|---|---|---|---|---|---|
| Starting Balance | $124,359 | | | | | | | | | |
| Projected Replacements | ($34,660) | | ($10,800) | ($38,978) | ($15,754) | ($38,650) | ($30,058) | ($306,953) | ($35,248) | ($4,000) |
| Annual Deposit | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 |
| End of Year Balance | $140,143 | $190,586 | $230,229 | $241,695 | $276,384 | $288,177 | $308,562 | $52,053 | $67,249 | $113,692 |
| Cumulative Expenditures | ($34,660) | ($34,660) | ($45,460) | ($84,437) | ($100,191) | ($138,841) | ($168,899) | ($475,851) | ($511,099) | ($515,099) |
| Cumulative Receipts | $174,802 | $225,246 | $275,689 | $326,132 | $376,575 | $427,018 | $477,461 | $527,904 | $578,347 | $628,791 |
| **Year** | **2035** | **2036** | **2037** | **2038** | **2039** | **2040** | **2041** | **2042** | **2043** | **2044** |
| Projected Replacements | ($87,313) | ($13,300) | ($11,900) | ($28,598) | | ($91,595) | ($14,724) | ($15,520) | ($141,698) | ($142,537) |
| Annual Deposit | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 |
| End of Year Balance | $76,822 | $113,965 | $152,509 | $174,354 | $224,797 | $183,646 | $219,365 | $254,288 | $163,033 | $70,939 |
| Cumulative Expenditures | ($602,411) | ($615,711) | ($627,611) | ($656,209) | ($656,209) | ($747,804) | ($762,528) | ($778,048) | ($919,746) | ($1,062,283) |
| Cumulative Receipts | $679,234 | $729,677 | $780,120 | $830,563 | $881,006 | $931,449 | $981,892 | $1,032,335 | $1,082,779 | $1,133,222 |
| **Year** | **2045** | **2046** | **2047** | **2048** | **2049** | **2050** | **2051** | **2052** | **2053** | **2054** |
| Projected Replacements | ($24,730) | ($4,000) | ($17,204) | ($56,518) | ($3,300) | ($40,855) | ($12,500) | ($175,244) | ($35,852) | ($8,820) |
| Annual Deposit | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 | $50,443 |
| End of Year Balance | $96,653 | $143,096 | $176,335 | $170,261 | $217,404 | $226,992 | $264,935 | $140,135 | $154,727 | $196,350 |
| Cumulative Expenditures | ($1,087,012) | ($1,091,012) | ($1,108,216) | ($1,164,734) | ($1,168,034) | ($1,208,888) | ($1,221,388) | ($1,396,632) | ($1,432,483) | ($1,441,303) |
| Cumulative Receipts | $1,183,665 | $1,234,108 | $1,284,551 | $1,334,994 | $1,385,437 | $1,435,880 | $1,486,324 | $1,536,767 | $1,587,210 | $1,637,653 |
| **Year** | **2055** | **2056** | **2057** | **1st Peak - 2058** | **2059** | **2060** | **2061** | **2062** | **2nd Peak - 2063** | **3rd Peak - 2064** |
| Projected Replacements | ($74,190) | ($142,695) | ($35,000) | ($96,238) | ($15,754) | ($42,150) | ($16,370) | ($14,018) | ($136,418) | ($4,000) |
| Annual Deposit | $50,443 | $50,443 | $50,443 | $50,443 | $44,942 | $44,942 | $44,942 | $44,942 | $44,942 | $4,000 |
| End of Year Balance | $172,603 | $80,351 | $95,794 | $50,000 | $79,188 | $81,980 | $110,552 | $141,476 | $50,000 | $50,000 |
| Cumulative Expenditures | ($1,515,493) | ($1,658,188) | ($1,693,188) | ($1,789,425) | ($1,805,179) | ($1,847,329) | ($1,863,699) | ($1,877,717) | ($2,014,135) | ($2,018,135) |
| Cumulative Receipts | $1,688,096 | $1,738,539 | $1,788,982 | $1,839,425 | $1,884,367 | $1,929,309 | $1,974,251 | $2,019,193 | $2,064,135 | $2,068,135 |

# INFLATION ADJUSTED FUNDING

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

**$50,443** **2025 - CASH FLOW METHOD RECOMMENDED FUNDING**

The 2025 Study Year calculations have been made using current replacement costs

**$53,470** **2026 - 6.0% INFLATION ADJUSTED FUNDING**

A new analysis calculates the 2026 funding based on three assumptions:

- Starting Balance totaling $140,143 on January 1, 2026.
- No Expenditures from Replacement Reserves in 2026.

**$56,678** **2027 - 6.0% INFLATION ADJUSTED FUNDING**

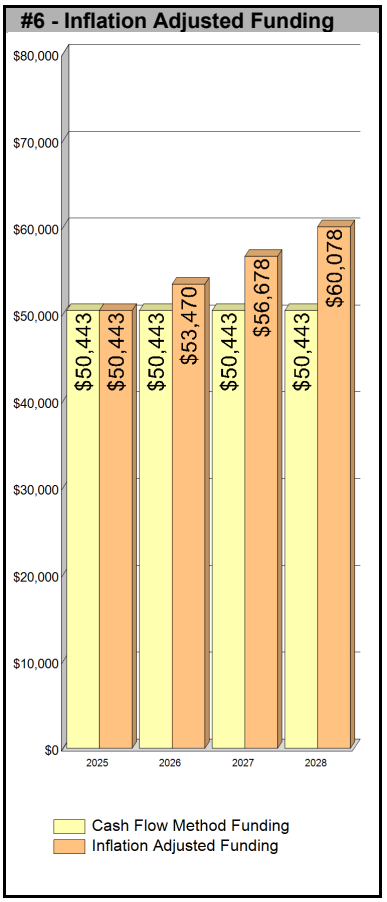
A new analysis calculates the 2027 funding based on three assumptions:

- Starting balance of approximately $193,613 = 2027 Starting Balance $140,143, plus Inflation Adjusted Funding $53,470 for 2026, minus $0 2026 Inflation Adjusted Cost.
- 2027 Non-inflation replacement costs listed in Section C, $10,800, will be replaced at approximately $12,135, 6.0% compounded inflation increase to 2025 costs.
- The $56,678 inflation-adjusted funding in 2027 is a 6.0% increase over the non-inflation-adjusted funding of $53,470 for 2026.

**$60,078** **2028 - 6.0% INFLATION ADJUSTED FUNDING**

A new analysis calculates the 2028 funding based on three assumptions:

- Starting balance of approximately $238,155 = 2028 Starting Balance $193,613, plus Inflation Adjusted Funding $56,678 for 2027, minus $12,135 2027 Inflation Adjusted Cost.
- 2028 Non-inflation replacement costs listed in Section C, $38,978, will be replaced at approximately $46,423, 6.0% compounded inflation increase to 2025 costs.
- The $60,078 inflation-adjusted funding in 2028 is a 6.0% increase over the non-inflation-adjusted funding of $56,678 for 2027.




**Year Four and 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 to be professionally updated every 3 to 5 years.

**Inflation Adjustment**

Prior to approving a budget based upon the 2026, 2027 and 2028 inflation-adjusted funding calculations above, the 6.00 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 percentage point), 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 2025, based on a 1.00 percent interest rate, we estimate the Association may earn $1,323 on an average balance of $132,251, $1,669 on an average balance of $166,878 in 2026, and $2,159 on $215,904 in 2027. The Association may elect to attribute 100 percent of the earned interest to Reserves, resulting in a reduction in the 2025 funding from $50,443 to $49,121 (a 2.62 percent reduction), $53,470 to $51,801 in 2026 (a 3.12 percent reduction), and $56,678 to $54,519 in 2027 (a 3.80 percent reduction).

## REPLACEMENT RESERVE STUDY - SUPPLEMENTAL COMMENTS

Maryland's new Reserves and Reserve Study Law, HB-107, is intended to ensure that adequate Reserve Funding is available for capital repair and replacement projects when it is needed. This is done by funding the Reserve Fund annually. The law requires that the Recommended Annual Reserve Funding amount in the most recent Reserve Study be included in the Association's annual budgets. If this is an Association's "initial" (first) professionally conducted Reserve Study, HB-107 gives the Association up to three (3) fiscal years following the fiscal year in which the Reserve Study was completed, to attain the Annual Reserve Funding level recommended in the initial Reserve Study.

# SECTION B - REPLACEMENT RESERVE INVENTORY

- **PROJECTED REPLACEMENTS.** Tanterra HOA - Replacement Reserve Inventory identifies 82 items that 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 $1,660,416. Cumulative Replacements totaling $2,018,135 are scheduled in the Replacement Reserve Inventory over the 40-year Study Period. Cumulative Replacements include those components that are replaced more than once during the period of the study.

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

- **TAX CODE.** The United States Tax Code grants 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.

- **EXCLUDED ITEMS.** Some of the items contained in the Replacement Reserve Inventory are 'Excluded Items'. Multiple categories of items are typically excluded from funding by Replacement Reserves, including but not limited to:

  **Value.** Items with a replacement cost of less than $1000 and/or a normal economic life of less than 3 years are typically excluded from funding from Replacement Reserves. This exclusion should reflect the 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 B.2.

  **Long-lived Items.** Items are excluded from the Replacement Reserve Inventory when items are properly maintained and are assumed to have a life equal to the property.

  **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.

- **CATEGORIES.** The 82 items included in the Tanterra HOA Replacement Reserve Inventory are divided into 5 major categories. Each category is printed on a separate page, beginning on page B.3.

- **LEVEL OF SERVICE.** This Replacement Reserve Inventory has been developed in compliance with the standards established for a Level 2 Update, as defined by the National Reserve Study Standards, established in 1998 by the Community Associations Institute, which states:

  *This study has been performed as a Level 2 Update with Site Visit/On-Site Review as defined by the Community Associations Institute's, National Reserve Study Standards. As such, the component inventory is based on the study that was performed by MillerDodson Associates, 2021. This inventory was adjusted to reflect changes provided by the Community Manager and/or the Board of Directors, or adjustments made based on the site visit and visual assessment performed by the Analyst. The analysis, including fund status and funding plan, is developed from the adjusted inventory.*

## REPLACEMENT RESERVE INVENTORY - GENERAL INFORMATION (CONT'D)

- **INVENTORY DATA.** Each of the 82 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 (Years).** The number of years that a new and properly installed item should be expected to remain in service.

  **Remaining Economic Life (Years).** 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.

- **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.
- **ACCURACY OF THE ANALYSIS.** The accuracy of the Replacement Reserve Analysis is dependent upon expenditures from Replacement Reserves being made ONLY for the 82 Projected Replacements specifically listed in the Replacement Reserve Inventory. The inclusion/exclusion of items from the Replacement Reserve Inventory is discussed on Page B.1.

## SITE ITEMS
**PROJECTED REPLACEMENTS**

**NEL**- Normal Economic Life (yrs)
**REL**- Remaining Economic Life (yrs)

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| 1 | Masonry, stone, repointing mortar (entrance, retaining wall, BBQ) | sf | 860 | $10.00 | 10 | 2 | $8,600 |
| 2 | Entrance monument, lighting | ea | 2 | $150.00 | 10 | none | $300 |
| 3 | Asphalt access drive and parking, mill & overlay | sf | 31,090 | $2.45 | 20 | 18 | $76,171 |
| 4 | Asphalt access drive and parking, seal coat | sf | 31,090 | $0.25 | 5 | 3 | $7,773 |
| 5 | Asphalt access drive and parking, speed bumps | lf | 150 | $20.00 | 20 | 18 | $3,000 |
| | Asphalt path, pavement, overlay | | | | | | EXCLUDED |
| 6 | Asphalt path, seal coat and crack repair | sf | 11,980 | $1.25 | 5 | 3 | $14,975 |
| | Flagstone pavers, replace | | | | | | EXCLUDED |
| 7 | Flagstone pavers, repoint/reset | sf | 1,020 | $6.00 | 20 | 16 | $6,120 |
| 8 | Concrete, sidewalk, flatwork (6% allowance) | sf | 540 | $14.00 | 6 | 4 | $7,560 |
| 9 | Concrete curb, with sidewalk (6% allowance) | ft | 18 | $30.00 | 6 | 4 | $540 |
| 10 | Concrete curb and gutter (6% allowance) | ft | 12 | $42.00 | 6 | 4 | $504 |
| 11 | Concrete ramp | sf | 114 | $20.00 | 40 | none | $2,280 |
| 12 | Concrete steps (6% allowance) | ft | 4 | $175.00 | 6 | 3 | $700 |
| 13 | Concrete steps (6% allowance) | ft | 4 | $175.00 | 6 | 5 | $700 |
| 14 | Metal pipe railing, 1 strand (pool steps) | ft | 100 | $55.00 | 45 | 35 | $5,500 |
| 15 | Wood, PTL deck with wood benches | sf | 125 | $18.00 | 15 | 5 | $2,250 |
| | | | | Replacement Costs - Page Subtotal | | | $136,972 |

## COMMENTS

- We have assumed that the Association will replace the asphalt pavement by the installation of a 2-inch-thick overlay. The pavement will need to be milled prior to the installation of the overlay. Milling and the cost of minor repairs (5 to 10 percent of the total area) to the base materials and bearing soils beneath the pavement are included in the cost shown above.
- Seal coating or rejuvenation has been shown to extend service life of asphalt if performed at an early stage, once asphalt has fully cured and then cyclically thereafter. This is the best practice to extend life of the asphalt pavement. The Unit Cost includes crack sealing, and line/curb painting. The Asphalt paving industries recommendation/best practice is to sealcoat approximately one (1) year after the mill and overlay is performed. One (1) year allows the excess oils in the paving mixture to “weather off”. Sealing the following year locks in the remaining essential oils that keep the pavement pliable. Cyclical reapplication of the sealcoat, approximately every five (5) years, will keep those oils in expanding its useful life.
- Concrete has a normal economic life expectancy longer than the Study timeframe, therefore, MillerDodson models 6% of the total amount for replacement every six years. Items showing zero remaining life expectancy are to take care of immediate needs due to tripping hazards.
- For concrete components and other roadway shoulder work, we have assumed that the Association will conduct concrete component replacement projects in conjunction with asphalt pavement, other concrete, or rights-of-way replacement projects.
- Item #1: Masonry, stone, repointing mortar (entrance, retaining wall, BBQ) - Repointing includes the mortar between the stone used in the entrance monuments, retaining walls and bar-b-que.
- Item #3: Asphalt access drive and parking, mill & overlay - Association reports that the asphalt parking lot pavement was repaved and seal coated ~ late 2023.
- Asphalt path, pavement, overlay - Association has elected repair and not to replace the pavers; and therefore, the paver replace is excluded from the study.
- Item #6: Asphalt path, seal coat and crack repair - Association reports that the asphalt walking path pavement was repaired and seal coated ~ late 2023.
- Flagstone pavers, replace - Association reports that pavers will be repaired or reset and not be replaced; therefore, the Association has elected to exclude paver replacement.
- Item #7: Flagstone pavers, repoint/reset - Association reports that the stone decking pavers were re-grouted ~ 2022. Association reports that actual paver regrout / reset cost ~ $6160. Therefore, unit cost adjusted accordingly.
- Item #8: Concrete, sidewalk, flatwork (6% allowance) - Association reports that select concrete work was done ~ 2023; therefore, the REL is adjusted accordingly.

## SITE ITEMS
**PROJECTED REPLACEMENTS**

**NEL**- Normal Economic Life (yrs)
**REL**- Remaining Economic Life (yrs)

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| | Site light, 30' steel pole, refurbish | | | | | | EXCLUDED |
| 16 | Site light, 30' steel pole | ea | 8 | $3,550.00 | 25 | 15 | $28,400 |
| 17 | Site light, standard head | ea | 17 | $200.00 | 25 | 10 | $3,400 |
| 18 | Perimeter Fence, 6' chain link (fabric only) | ft | 1,050 | $5.50 | 30 | 10 | $5,775 |
| | Bollards, PTL wood (8"rd. X 4') | | | | | | EXCLUDED |
| 19 | Water lines, domestic (allowance) | ls | 1 | $12,500.00 | 20 | 6 | $12,500 |
| | Septic system, maintenance (allowance) | | | | | | EXCLUDED |
| 20 | Stormwater management (allowance) | ac | 6 | $1,500.00 | 30 | 23 | $9,000 |
| | | | | | | Replacement Costs - Page Subtotal | $59,075 |

## COMMENTS

- Comprehensive drawings detailing the components of the systems listed above were not available for our review. We have included the estimated cost of the systems based upon our experience with other similar communities. We have assumed that 10 percent of the system(s) will require replacement. In the future, this assumption and the estimated costs should be adjusted based upon the community's actual experience as is feasible.
- Site light, 30' steel pole, refurbish - [04/04/2025] excluded. Prior study comments 'Refurbishment costs in this study are for preliminary budgeting purposes only, accurate cost for the remedial work cannot be properly developed until design work (preparation of specifications, proposals, etc.) has been completed and approved by the Association.'
- Bollards, PTL wood (8"rd. X 4') - Association reports that they will not replace the wood bollards; therefore, the Association elected to exclude wood bollards from the study.
- Septic system, maintenance (allowance) - Association plans to maintain the septic system with operational funds; therefore, exclude from the study.

## EXTERIOR ITEMS - POOL BUILDING

**PROJECTED REPLACEMENTS**

**NEL**- Normal Economic Life (yrs)
**REL**- Remaining Economic Life (yrs)

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| 21 | Roofing, asphalt shingles | sf | 3,400 | $5.00 | 50 | 44 | $17,000 |
| 22 | Roof sheathing, partial replacement (allowance) | ls | 1 | $3,200.00 | 50 | 44 | $3,200 |
| 23 | Gutter and downspouts, 6" aluminum | ft | 317 | $15.00 | 30 | 44 | $4,755 |
| 24 | Skylight, glass vision panel | ea | 4 | $420.00 | 50 | 44 | $1,680 |
| 25 | Siding and trim, vinyl | sf | 1,475 | $9.00 | 30 | 25 | $13,275 |
| | Soffit and trim, 2 X 6 replace w/ vinyl (allowance) | | | | | | EXCLUDED |
| | Trim capping | | | | | | EXCLUDED |
| 26 | Stucco, recoating | sf | 650 | $9.00 | 10 | 3 | $5,850 |
| 27 | Window, operating | sf | 58 | $68.00 | 40 | 10 | $3,944 |
| 28 | Sliding glass doors | ea | 1 | $1,300.00 | 40 | 10 | $1,300 |
| 29 | Door, steel, flush (3' X 6'8") | ea | 5 | $1,600.00 | 25 | 8 | $8,000 |
| 30 | Exterior lighting, wall mount & flood (allowance) | ls | 1 | $1,980.00 | 15 | 3 | $1,980 |

Replacement Costs - Page Subtotal $60,984

## COMMENTS

- Items with an REL of 40 years or more are shown here for tracking purposes but are not included in the reserve calculation. These items will be included in the calculation of reserves in successive updates when REL is 39 years or less.
- Item #21: Roofing, asphalt shingles - Association report that the pool building roof was replaced ~ 2020.
- Item #25: Siding and trim, vinyl - Association report that the pool building siding was replaced ~ 2021.
- Soffit and trim, 2 X 6 replace w/ vinyl (allowance) - Association reports that the pool building siding was replaced ~ 2021; therefore, this component excluded.
- Trim capping - [06/24/2025] excluded per board
- Item #29: Door, steel, flush (3' X 6'8") - Association reports that the exterior steel doors are galvanized and were painted with corrosion protection since the last study; therefore, the REL is adjusted accordingly.

## EXTERIOR ITEMS - SNACK BAR & SHEDS

**PROJECTED REPLACEMENTS**

**NEL**- Normal Economic Life (yrs)
**REL**- Remaining Economic Life (yrs)

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| 31 | Snack Bar shed, vinyl siding (material only) | sf | 980 | $4.50 | 40 | 27 | $4,410 |
| 32 | Snack Bar shed, asphalt shingles roofing | sf | 746 | $5.00 | 40 | 27 | $3,730 |
| 33 | Snack Bar shed, awning, retractable manually | ea | 1 | $2,640.00 | 40 | 27 | $2,640 |
| | Snack Bar shed awning, refabric | | | | | | EXCLUDED |
| 34 | Snack Bar shed, roll-up service window | ea | 1 | $2,180.00 | 30 | 11 | $2,180 |
| 35 | Snack Bar shed, door, steel, flush (3' X 6'8") | ea | 1 | $1,600.00 | 30 | 7 | $1,600 |
| 36 | Snack Bar shed, door, steel flush (5' X 6'8") | ea | 1 | $2,200.00 | 30 | 7 | $2,200 |
| | Snack Bar shed, gas ceiling heater | | | | | | EXCLUDED |
| 37 | Snack Bar shed, dbl. door commercial refrigerator | ea | 1 | $2,300.00 | 30 | 11 | $2,300 |
| 38 | Snack Bar shed, SS 3 compartment sink | ea | 1 | $2,000.00 | 30 | 15 | $2,000 |
| 39 | Storage shed, wood frame, T1-11 OSB siding | sf | 812 | $9.00 | 25 | 6 | $7,308 |
| 40 | Storage shed, asphalt shingles roofing | sf | 630 | $5.00 | 30 | 6 | $3,150 |
| 41 | Storage shed, door, steel , flush (3'6" X 6'8") | ea | 1 | $1,600.00 | 30 | 6 | $1,600 |
| 42 | Storage shed, door, steel, flush (5' X 6'8") | ea | 1 | $2,200.00 | 30 | 6 | $2,200 |
| 43 | Fence, 6' vinyl solid face | ft | 87 | $45.00 | 30 | 15 | $3,915 |
| | Maintenance shed, wood frame and siding (painted) | | | | | | EXCLUDED |

Replacement Costs - Page Subtotal $39,233

## COMMENTS

- Item #31: Snack Bar shed, vinyl siding (material only) - Standard unit cost halved because Association will provide volunteer labor.
- Snack Bar shed awning, refabric - Association reports that snack bar awning fabric will be replaced using operating funds; and therefore, should be excluded from the study.
- Snack Bar shed, gas ceiling heater - Association reports that the heater was replaces at a cost of ~$500 in 2024. Therefore, exclude.
- Item #39: Storage shed, wood frame, T1-11 OSB siding (painted) - Association's plan is to replace with vinyl siding.
- Maintenance shed, wood frame and siding (painted) - Association reports that the maintenance shed will be replaced, when needed, with operational funds; and therefore, exclude.

## INTERIOR ITEMS - POOL BUILDING
**PROJECTED REPLACEMENTS**

**NEL**- Normal Economic Life (yrs)
**REL**- Remaining Economic Life (yrs)

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| 44 | Locker/shower room, renovate (allowance) | ls | 1 | $13,900.00 | 20 | 10 | $13,900 |
| 45 | Locker/shower room, renovate (allowance) | ls | 1 | $12,210.00 | 20 | 10 | $12,210 |
| | Lifeguard room, renovate (allowance) | | | | | | EXCLUDED |
| | Lifeguard room, defibrillator | | | | | | EXCLUDED |
| | Lifeguard room, computer & printer (allowance) | | | | | | EXCLUDED |
| | Lifeguard room, PA system with exterior speakers | | | | | | EXCLUDED |
| | | | | | | Replacement Costs - Page Subtotal | $26,110 |

## COMMENTS

- Lifeguard room, renovate (allowance) - Association reports that all life guard room equipment will be replaced with operating funds; and therefore, exclude.
- Lifeguard room, defibrillator - [06/24/2025] excluded per board
- Lifeguard room, computer & printer (allowance) - [06/24/2025] excluded per board
- Lifeguard room, PA system with exterior speakers - [06/24/2025] excluded per board

## RECREATION ITEMS - SWIMMING AND WADING POOLS

**PROJECTED REPLACEMENTS**

**NEL**- Normal Economic Life (yrs)
**REL**- Remaining Economic Life (yrs)

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| 46 | Swimming pool, structure | sf | 6,179 | $120.00 | 60 | 47 | $741,480 |
| 47 | Swimming pool, whitecoat | sf | 6,179 | $17.00 | 12 | 7 | $105,043 |
| 48 | Swimming pool, waterline tile | ft | 880 | $22.00 | 12 | 7 | $19,360 |
| 49 | Swimming pool coping, precast concrete | ft | 397 | $75.00 | 20 | 7 | $29,775 |
| 50 | Swimming pool, pump (7.5hp) | ea | 1 | $7,150.00 | 15 | 4 | $7,150 |
| 51 | Swimming pool filter, 132 Commerical sand filter | ea | 1 | $24,500.00 | 30 | 15 | $24,500 |
| 52 | Wading pool, structure | sf | 540 | $120.00 | 60 | 47 | $64,800 |
| 53 | Wading pool, whitecoat | sf | 540 | $17.00 | 12 | 7 | $9,180 |
| 54 | Wading pool, waterline tile | ft | 82 | $22.00 | 12 | 7 | $1,804 |
| 55 | Wading pool coping, precast concrete | ft | 102 | $75.00 | 20 | 7 | $7,650 |
| | Wading pool, pump (1 hp) | | | | | | EXCLUDED |
| | Wading pool filter, sand (30") | | | | | | EXCLUDED |
| | Chemical tank | | | | | | EXCLUDED |
| | Chemical feed pump | | | | | | EXCLUDED |
| 56 | Pool deck, concrete (6% allowance) | sf | 580 | $14.00 | 6 | 5 | $8,120 |
| 57 | Wading pool, sun shade frame (20' X 18") replace | ea | 1 | $7,040.00 | 45 | 32 | $7,040 |
| | Wading pool, sun shade fabric | | | | | | EXCLUDED |
| 58 | Pool deck, BreezeBrella frame | ea | 2 | $8,580.00 | 45 | 32 | $17,160 |
| 59 | Pool deck, BreezeBrella fabric | ea | 2 | $1,100.00 | 15 | 2 | $2,200 |

Replacement Costs - Page Subtotal $1,045,262

## COMMENTS

- Wading pool, pump (1 hp) - [Association reports that the wading pool pump, filter, chemical tanks, and chemical feed pump will be replaced with operating funds; and therefore, exclude.
- Wading pool filter, sand (30") - [06/24/2025] excluded per board
- Chemical tank - [06/24/2025] excluded per board
- Chemical feed pump - [06/24/2025] excluded per board
- Item #56: Pool deck, concrete (6% allowance) - Association reports that the pool deck was upgraded / replaced with an over engineered base ~ 2013.
- Wading pool, sun shade fabric - Association reports that the wading pool sun shade fabric was repaired ~ 2024 and operating funds will be used in the future; and therefore, exclude.

## RECREATION ITEMS - SWIMMING POOL & PAVILION

**PROJECTED REPLACEMENTS**

**NEL**- Normal Economic Life (yrs)
**REL**- Remaining Economic Life (yrs)

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| 60 | Diving stand | ea | 2 | $15,000.00 | 20 | 18 | $30,000 |
| 61 | Diving board (16') | ea | 1 | $4,500.00 | 10 | 7 | $4,500 |
| 62 | Diving board (16') | ea | 1 | $4,500.00 | 10 | 8 | $4,500 |
| 63 | Lifeguard chair, mounted | ea | 3 | $4,800.00 | 20 | 10 | $14,400 |
| 64 | Pool ladder | ea | 3 | $1,800.00 | 20 | 5 | $5,400 |
| 65 | Safety rail | ea | 2 | $650.00 | 20 | 10 | $1,300 |
| 66 | Pool furniture (allowance) | ls | 1 | $3,300.00 | 3 | none | $3,300 |
| | Security camera (IP) | | | | | | EXCLUDED |
| 67 | Pavilion, laminated wood with wood post structure | ea | 2,200 | $22.80 | 40 | 33 | $50,160 |
| 68 | Pavilion, asphalt shingle | sf | 2,200 | $5.00 | 50 | 43 | $11,000 |
| | Pavilion ceiling fan without light | | | | | | EXCLUDED |
| | Pavilion lighting, ceiling mount double LED spot | | | | | | EXCLUDED |
| | Pavilion lighting, ceiling mounted flood lights | | | | | | EXCLUDED |
| | Gazebo, PTL with asphalt shingle | | | | | | EXCLUDED |
| | | | | | | Replacement Costs - Page Subtotal | $124,560 |

## COMMENTS

- Item #61: Diving board (16') - Association reports that the one (1) diving board was refurbished ~ 2023 and one (1) refurbished ~ 2024; therefore, the REL was adjusted accordingly.
- Item #62: Diving board (16') - Association reports that the one (1) diving board was refurbished ~ 2023 and one (1) refurbished ~ 2024; therefore, the REL was adjusted accordingly.
- Security camera (IP) - Association reports that security equipment will be replaced using operating funds; and therefore, exclude.
- Item #68: Pavilion, asphalt shingle - Association reports that the pavilion roof was replaced with 50 year asphalt shingles ~ 2019.
- Pavilion ceiling fan without light - Association reports that all pavilion fans and lights will be replaced using operating funds; and therefore, exclude.
- Pavilion lighting, ceiling mount double LED spot lights - [06/24/2025] excluded per board
- Pavilion lighting, ceiling mounted flood lights - [06/24/2025] excluded per board
- Gazebo, PTL with asphalt shingle - Association reports that the gazebo will not be replaced; and therefore, exclude.

## RECREATION ITEMS - COURTS

**PROJECTED REPLACEMENTS**

**NEL**- Normal Economic Life (yrs)
**REL**- Remaining Economic Life (yrs)

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| 69 | Tennis court/Pickle court, asphalt overlay | sf | 12,938 | $5.80 | 20 | 7 | $75,040 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | sf | 12,938 | $1.20 | 5 | none | $15,526 |
| 71 | Tennis court, post and footings | pr | 2 | $1,800.00 | 20 | 7 | $3,600 |
| | Tennis court, net | | | | | | EXCLUDED |
| 72 | Tennis Court Fence, 10' chain link (fabric only) | ft | 454 | $9.00 | 30 | 7 | $4,086 |
| 73 | Hockey court, asphalt overlay | sf | 5,545 | $5.80 | 20 | 7 | $32,161 |
| 74 | Hockey court, color coat | sf | 5,545 | $1.20 | 5 | none | $6,654 |
| 75 | Hockey court, 10' chain link (fabric only) | ft | 176 | $9.00 | 45 | 7 | $1,584 |
| 76 | Hockey court, 3' chain link (fabric only) | ft | 40 | $3.00 | 30 | 7 | $120 |
| 77 | Picnic/Observation court, asphalt overlay | sf | 1,334 | $5.80 | 20 | 7 | $7,737 |
| 78 | Picnic/Observation court, 8' chain link (fabric only) | ft | 168 | $9.00 | 30 | 7 | $1,512 |

Replacement Costs - Page Subtotal $148,020

## COMMENTS

- Tennis court, net - Association reports that the tennis court net will be replaced with operating funds; and therefore, exclude.

## BUILDING SYSTEMS - ELECTRIC & PLUMBING

**PROJECTED REPLACEMENTS**

**NEL**- Normal Economic Life (yrs)
**REL**- Remaining Economic Life (yrs)

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| 79 | Electric panels and breakers, 400 amp | ea | 1 | $3,500.00 | 60 | 33 | $3,500 |
| 80 | Electric panels and breakers, 100 amp | ea | 3 | $1,900.00 | 50 | 23 | $5,700 |
| | Exhaust fan, locker room (small) | | | | | | EXCLUDED |
| 81 | Building piping, copper (allowance) | ls | 1 | $4,400.00 | 20 | 3 | $4,400 |
| 82 | Water heater, commercial, electric | ea | 2 | $3,300.00 | 15 | none | $6,600 |

Replacement Costs - Page Subtotal $20,200

## COMMENTS

- Exhaust fan, locker room (small) - Association reports that operating funds be used to replace exhaust fans in the future; and therefore, exclude.
- Item #82: Water heater, commercial, electric - Association reports that the water heater will be replaced with an 80 gallon tank in the future.

## VALUATION EXCLUSIONS
**Excluded Items**

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| | Miscellaneous signage | | | | | | 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 $1000 have not been scheduled for funding from Replacement Reserve. Examples of items excluded by Replacement Reserves by this standard are listed above.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

## LONG-LIFE EXCLUSIONS
**Excluded Items**

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| | Masonry features | | | | | | EXCLUDED |
| | Stone retaining walls | | | | | | EXCLUDED |
| | Building foundation(s) | | | | | | EXCLUDED |
| | Concrete floor slabs (interior) | | | | | | EXCLUDED |

## LONG-LIFE EXCLUSIONS
**Comments**

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

## UNIT IMPROVEMENTS EXCLUSIONS

**Excluded Items**

| ITEM # | ITEM DESCRIPTION | UNIT | NUMBER OF UNITS | UNIT REPLACEMENT COST ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| | Domestic water pipes serving one unit | | | | | | EXCLUDED |
| | Sanitary sewers serving one unit | | | | | | EXCLUDED |
| | Electrical wiring serving one unit | | | | | | EXCLUDED |
| | Cable TV service serving one unit | | | | | | EXCLUDED |
| | Telephone service serving one unit | | | | | | EXCLUDED |
| | Gas service serving one unit | | | | | | EXCLUDED |
| | Driveway on an individual lot | | | | | | EXCLUDED |
| | Apron on an individual lot | | | | | | EXCLUDED |
| | Sidewalk on an individual lot | | | | | | EXCLUDED |
| | Stairs on an individual lot | | | | | | EXCLUDED |
| | Curb & gutter on an individual lot | | | | | | EXCLUDED |
| | Retaining wall on an individual lot | | | | | | EXCLUDED |
| | Fence on an individual lot | | | | | | EXCLUDED |
| | Unit exterior | | | | | | EXCLUDED |
| | Unit windows | | | | | | EXCLUDED |
| | Unit doors | | | | | | EXCLUDED |
| | Unit skylights | | | | | | EXCLUDED |
| | Unit deck, patio, and/or balcony | | | | | | EXCLUDED |
| | Unit mailbox | | | | | | EXCLUDED |
| | Unit interior | | | | | | EXCLUDED |
| | Unit HVAC system | | | | | | 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 ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| | Primary electric feeds | | | | | | EXCLUDED |
| | Electric transformers | | | | | | EXCLUDED |
| | Cable TV systems and structures | | | | | | EXCLUDED |
| | Telephone cables and structures | | | | | | EXCLUDED |
| | Site lighting | | | | | | EXCLUDED |
| | Water mains and meters | | | | | | EXCLUDED |
| | Sanitary sewers | | | | | | EXCLUDED |
| | Stormwater management system | | | | | | 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 ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| | Cleaning of asphalt pavement | | | | | | EXCLUDED |
| | Crack sealing of asphalt pavement | | | | | | EXCLUDED |
| | Painting of curbs | | | | | | EXCLUDED |
| | Striping of parking spaces | | | | | | EXCLUDED |
| | Landscaping and site grading | | | | | | EXCLUDED |
| | Exterior painting | | | | | | EXCLUDED |
| | Interior painting | | | | | | EXCLUDED |
| | Janitorial service | | | | | | EXCLUDED |
| | Repair services | | | | | | EXCLUDED |
| | Partial replacements | | | | | | EXCLUDED |
| | Capital improvements | | | | | | 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 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 ($) | NEL | REL | REPLACEMENT COST ($) |
|---|---|---|---|---|---|---|---|
| | Government, roadways and parking | | | | | | EXCLUDED |
| | Government, sidewalks and curbs | | | | | | EXCLUDED |
| | Government, lighting | | | | | | EXCLUDED |
| | Government, stormwater mgmt. | | | | | | EXCLUDED |
| | Government, ponds | | | | | | EXCLUDED |
| | Government, mailboxes | | | | | | 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 rights-of-way, including adjacent properties and adjacent roadways.
- The list above exemplifies exclusions by the cited standard(s) and is not intended to be comprehensive.

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# SECTION C - CALENDAR OF PROJECTED ANNUAL REPLACEMENTS

**GENERAL STATEMENT.** The 82 Projected Replacements in the Tanterra HOA 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 C.2.

## REPLACEMENT RESERVE ANALYSIS AND INVENTORY POLICIES, PROCEDURES, AND ADMINISTRATION

- **REVIEW OF THE REPLACEMENT RESERVE STUDY.** For this study to be effective, it should be reviewed by the 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.
- **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. We acknowledge that there are instances in which multiple revisions are necessary. However, unnecessary multiple revisions drain our time and manpower resources. Therefore, MillerDodson will exercise its sole discretion as to whether additional charges are incurred.
- **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 replacement 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 MillerDodson 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 MillerDodson 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 Study Period and 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.

## PROJECTED REPLACEMENTS

| Item | 2025 - Study Year | $ |
|---|---|---|
| 2 | Entrance monument, lighting | $300 |
| 11 | Concrete ramp | $2,280 |
| 66 | Pool furniture (allowance) | $3,300 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | $15,526 |
| 74 | Hockey court, color coat | $6,654 |
| 82 | Water heater, commercial, electric | $6,600 |
| Total Scheduled Replacements | | $34,660 |

| Item | 2026 - YEAR 1 | $ |
|---|---|---|
| No Scheduled Replacements | | |

| Item | 2027 - YEAR 2 | $ |
|---|---|---|
| 1 | Masonry, stone, repointing mortar (entrance, retaining | $8,600 |
| 59 | Pool deck, BreezeBrella fabric | $2,200 |
| Total Scheduled Replacements | | $10,800 |

| Item | 2028 - YEAR 3 | $ |
|---|---|---|
| 4 | Asphalt access drive and parking, seal coat | $7,773 |
| 6 | Asphalt path, seal coat and crack repair | $14,975 |
| 12 | Concrete steps (6% allowance) | $700 |
| 26 | Stucco, recoating | $5,850 |
| 30 | Exterior lighting, wall mount & flood (allowance) | $1,980 |
| 66 | Pool furniture (allowance) | $3,300 |
| 81 | Building piping, copper (allowance) | $4,400 |
| Total Scheduled Replacements | | $38,978 |

| Item | 2029 - YEAR 4 | $ |
|---|---|---|
| 8 | Concrete, sidewalk, flatwork (6% allowance) | $7,560 |
| 9 | Concrete curb, with sidewalk (6% allowance) | $540 |
| 10 | Concrete curb and gutter (6% allowance) | $504 |
| 50 | Swimming pool, pump (7.5hp) | $7,150 |
| Total Scheduled Replacements | | $15,754 |

| Item | 2030 - YEAR 5 | $ |
|---|---|---|
| 13 | Concrete steps (6% alowance) | $700 |
| 15 | Wood, PTL deck with wood benches | $2,250 |
| 56 | Pool deck, concrete (6% allowance) | $8,120 |
| 64 | Pool ladder | $5,400 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | $15,526 |
| 74 | Hockey court, color coat | $6,654 |
| Total Scheduled Replacements | | $38,650 |

## PROJECTED REPLACEMENTS

| Item | 2031 - YEAR 6 | $ |
|---|---|---|
| 19 | Water lines, domestic (allowance) | $12,500 |
| 39 | Storage shed, wood frame, T1-11 OSB siding (painted) | $7,308 |
| 40 | Storage shed, asphalt shingles roofing | $3,150 |
| 41 | Storage shed, door, steel , flush (3'6" X 6'8") | $1,600 |
| 42 | Storage shed, door, steel, flush (5' X 6'8") | $2,200 |
| 66 | Pool furniture (allowance) | $3,300 |
| | Total Scheduled Replacements | $30,058 |

| Item | 2032 - YEAR 7 | $ |
|---|---|---|
| 35 | Snack Bar shed, door, steel, flush (3' X 6'8") | $1,600 |
| 36 | Snack Bar shed, door, steel flush (5' X 6'8") | $2,200 |
| 47 | Swimming pool, whitecoat | $105,043 |
| 48 | Swimming pool, waterline tile | $19,360 |
| 49 | Swimming pool coping, precast concrete | $29,775 |
| 53 | Wading pool, whitecoat | $9,180 |
| 54 | Wading pool, waterline tile | $1,804 |
| 55 | Wading pool coping, precast concrete | $7,650 |
| 61 | Diving board (16') | $4,500 |
| 69 | Tennis court/Pickle court, asphalt overlay | $75,040 |
| 71 | Tennis court, post and footings | $3,600 |
| 72 | Tennis Court Fence, 10' chain link (fabric only) | $4,086 |
| 73 | Hockey court, asphalt overlay | $32,161 |
| 75 | Hockey court, 10' chain link (fabric only) | $1,584 |
| 76 | Hockey court, 3' chain link (fabric only) | $120 |
| 77 | Picnic/Observation court, asphalt overlay | $7,737 |
| 78 | Picnic/Observation court, 8' chain link (fabric only) | $1,512 |
| | Total Scheduled Replacements | $306,953 |

| Item | 2033 - YEAR 8 | $ |
|---|---|---|
| 4 | Asphalt access drive and parking, seal coat | $7,773 |
| 6 | Asphalt path, seal coat and crack repair | $14,975 |
| 29 | Door, steel, flush (3' X 6'8") | $8,000 |
| 62 | Diving board (16') | $4,500 |
| | Total Scheduled Replacements | $35,248 |

| Item | 2034 - YEAR 9 | $ |
|---|---|---|
| 12 | Concrete steps (6% allowance) | $700 |
| 66 | Pool furniture (allowance) | $3,300 |
| | Total Scheduled Replacements | $4,000 |

| Item | 2035 - YEAR 10 | $ |
|---|---|---|
| 2 | Entrance monument, lighting | $300 |
| 8 | Concrete, sidewalk, flatwork (6% allowance) | $7,560 |
| 9 | Concrete curb, with sidewalk (6% allowance) | $540 |
| 10 | Concrete curb and gutter (6% allowance) | $504 |
| 17 | Site light, standard head | $3,400 |
| 18 | Perimeter Fence, 6' chain link (fabric only) | $5,775 |
| 27 | Window, operating | $3,944 |
| 28 | Sliding glass doors | $1,300 |
| 44 | Locker/shower room, renovate (allowance) | $13,900 |
| 45 | Locker/shower room, renovate (allowance) | $12,210 |
| 63 | Lifeguard chair, mounted | $14,400 |
| 65 | Safety rail | $1,300 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | $15,526 |
| 74 | Hockey court, color coat | $6,654 |
| | Total Scheduled Replacements | $87,313 |

| Item | 2036 - YEAR 11 | $ |
|---|---|---|
| 13 | Concrete steps (6% alowance) | $700 |
| 34 | Snack Bar shed, roll-up service window | $2,180 |
| 37 | Snack Bar shed, dbl. door commercial refrigerator | $2,300 |
| 56 | Pool deck, concrete (6% allowance) | $8,120 |
| | Total Scheduled Replacements | $13,300 |

## PROJECTED REPLACEMENTS

| Item | 2037 - YEAR 12 | $ |
|---|---|---|
| 1 | Masonry, stone, repointing mortar (entrance, retaining | $8,600 |
| 66 | Pool furniture (allowance) | $3,300 |
| | Total Scheduled Replacements | $11,900 |

| Item | 2038 - YEAR 13 | $ |
|---|---|---|
| 4 | Asphalt access drive and parking, seal coat | $7,773 |
| 6 | Asphalt path, seal coat and crack repair | $14,975 |
| 26 | Stucco, recoating | $5,850 |
| | Total Scheduled Replacements | $28,598 |

| Item | 2039 - YEAR 14 | $ |
|---|---|---|
| | No Scheduled Replacements | |

| Item | 2040 - YEAR 15 | $ |
|---|---|---|
| 12 | Concrete steps (6% allowance) | $700 |
| 16 | Site light, 30' steel pole | $28,400 |
| 38 | Snack Bar shed, SS 3 compartment sink | $2,000 |
| 43 | Fence, 6' vinyl solid face | $3,915 |
| 51 | Swimming pool filter, 132 Commerical sand filter | $24,500 |
| 66 | Pool furniture (allowance) | $3,300 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | $15,526 |
| 74 | Hockey court, color coat | $6,654 |
| 82 | Water heater, commercial, electric | $6,600 |
| | Total Scheduled Replacements | $91,595 |

| Item | 2041 - YEAR 16 | $ |
|---|---|---|
| 7 | Flagstone pavers, repoint/reset | $6,120 |
| 8 | Concrete, sidewalk, flatwork (6% allowance) | $7,560 |
| 9 | Concrete curb, with sidewalk (6% allowance) | $540 |
| 10 | Concrete curb and gutter (6% allowance) | $504 |
| | Total Scheduled Replacements | $14,724 |

| Item | 2042 - YEAR 17 | $ |
|---|---|---|
| 13 | Concrete steps (6% alowance) | $700 |
| 56 | Pool deck, concrete (6% allowance) | $8,120 |
| 59 | Pool deck, BreezeBrella fabric | $2,200 |
| 61 | Diving board (16') | $4,500 |
| | Total Scheduled Replacements | $15,520 |

## PROJECTED REPLACEMENTS

| Item | 2043 - YEAR 18 | $ |
|---|---|---|
| 3 | Asphalt access drive and parking, mill & overlay | $76,171 |
| 4 | Asphalt access drive and parking, seal coat | $7,773 |
| 5 | Asphalt access drive and parking, speed bumps | $3,000 |
| 6 | Asphalt path, seal coat and crack repair | $14,975 |
| 30 | Exterior lighting, wall mount & flood (allowance) | $1,980 |
| 60 | Diving stand | $30,000 |
| 62 | Diving board (16') | $4,500 |
| 66 | Pool furniture (allowance) | $3,300 |
| | Total Scheduled Replacements | $141,698 |

| Item | 2044 - YEAR 19 | $ |
|---|---|---|
| 47 | Swimming pool, whitecoat | $105,043 |
| 48 | Swimming pool, waterline tile | $19,360 |
| 50 | Swimming pool, pump (7.5hp) | $7,150 |
| 53 | Wading pool, whitecoat | $9,180 |
| 54 | Wading pool, waterline tile | $1,804 |
| | Total Scheduled Replacements | $142,537 |

| Item | 2045 - YEAR 20 | $ |
|---|---|---|
| 2 | Entrance monument, lighting | $300 |
| 15 | Wood, PTL deck with wood benches | $2,250 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | $15,526 |
| 74 | Hockey court, color coat | $6,654 |
| | Total Scheduled Replacements | $24,730 |

| Item | 2046 - YEAR 21 | $ |
|---|---|---|
| 12 | Concrete steps (6% allowance) | $700 |
| 66 | Pool furniture (allowance) | $3,300 |
| | Total Scheduled Replacements | $4,000 |

| Item | 2047 - YEAR 22 | $ |
|---|---|---|
| 1 | Masonry, stone, repointing mortar (entrance, retaining | $8,600 |
| 8 | Concrete, sidewalk, flatwork (6% allowance) | $7,560 |
| 9 | Concrete curb, with sidewalk (6% allowance) | $540 |
| 10 | Concrete curb and gutter (6% allowance) | $504 |
| | Total Scheduled Replacements | $17,204 |

| Item | 2048 - YEAR 23 | $ |
|---|---|---|
| 4 | Asphalt access drive and parking, seal coat | $7,773 |
| 6 | Asphalt path, seal coat and crack repair | $14,975 |
| 13 | Concrete steps (6% alowance) | $700 |
| 20 | Stormwater management (allowance) | $9,000 |
| 26 | Stucco, recoating | $5,850 |
| 56 | Pool deck, concrete (6% allowance) | $8,120 |
| 80 | Electric panels and breakers, 100 amp | $5,700 |
| 81 | Building piping, copper (allowance) | $4,400 |
| | Total Scheduled Replacements | $56,518 |

## PROJECTED REPLACEMENTS

| Item | 2049 - YEAR 24 | $ |
|---|---|---|
| 66 | Pool furniture (allowance) | $3,300 |
| | Total Scheduled Replacements | $3,300 |

| Item | 2050 - YEAR 25 | $ |
|---|---|---|
| 25 | Siding and trim, vinyl | $13,275 |
| 64 | Pool ladder | $5,400 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | $15,526 |
| 74 | Hockey court, color coat | $6,654 |
| | Total Scheduled Replacements | $40,855 |

| Item | 2051 - YEAR 26 | $ |
|---|---|---|
| 19 | Water lines, domestic (allowance) | $12,500 |
| | Total Scheduled Replacements | $12,500 |

| Item | 2052 - YEAR 27 | $ |
|---|---|---|
| 12 | Concrete steps (6% allowance) | $700 |
| 31 | Snack Bar shed, vinyl siding (material only) | $4,410 |
| 32 | Snack Bar shed, asphalt shingles roofing | $3,730 |
| 33 | Snack Bar shed, awning, retractable manually (replace) | $2,640 |
| 49 | Swimming pool coping, precast concrete | $29,775 |
| 55 | Wading pool coping, precast concrete | $7,650 |
| 61 | Diving board (16') | $4,500 |
| 66 | Pool furniture (allowance) | $3,300 |
| 69 | Tennis court/Pickle court, asphalt overlay | $75,040 |
| 71 | Tennis court, post and footings | $3,600 |
| 73 | Hockey court, asphalt overlay | $32,161 |
| 77 | Picnic/Observation court, asphalt overlay | $7,737 |
| | Total Scheduled Replacements | $175,244 |

| Item | 2053 - YEAR 28 | $ |
|---|---|---|
| 4 | Asphalt access drive and parking, seal coat | $7,773 |
| 6 | Asphalt path, seal coat and crack repair | $14,975 |
| 8 | Concrete, sidewalk, flatwork (6% allowance) | $7,560 |
| 9 | Concrete curb, with sidewalk (6% allowance) | $540 |
| 10 | Concrete curb and gutter (6% allowance) | $504 |
| 62 | Diving board (16') | $4,500 |
| | Total Scheduled Replacements | $35,852 |

| Item | 2054 - YEAR 29 | $ |
|---|---|---|
| 13 | Concrete steps (6% alowance) | $700 |
| 56 | Pool deck, concrete (6% allowance) | $8,120 |
| | Total Scheduled Replacements | $8,820 |

## PROJECTED REPLACEMENTS

| Item | 2055 - YEAR 30 | $ |
|---|---|---|
| 2 | Entrance monument, lighting | $300 |
| 44 | Locker/shower room, renovate (allowance) | $13,900 |
| 45 | Locker/shower room, renovate (allowance) | $12,210 |
| 63 | Lifeguard chair, mounted | $14,400 |
| 65 | Safety rail | $1,300 |
| 66 | Pool furniture (allowance) | $3,300 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | $15,526 |
| 74 | Hockey court, color coat | $6,654 |
| 82 | Water heater, commercial, electric | $6,600 |
| Total Scheduled Replacements | | $74,190 |

| Item | 2056 - YEAR 31 | $ |
|---|---|---|
| 39 | Storage shed, wood frame, T1-11 OSB siding (painted) | $7,308 |
| 47 | Swimming pool, whitecoat | $105,043 |
| 48 | Swimming pool, waterline tile | $19,360 |
| 53 | Wading pool, whitecoat | $9,180 |
| 54 | Wading pool, waterline tile | $1,804 |
| Total Scheduled Replacements | | $142,695 |

| Item | 2057 - YEAR 32 | $ |
|---|---|---|
| 1 | Masonry, stone, repointing mortar (entrance, retaining | $8,600 |
| 57 | Wading pool, sun shade frame (20' X 18") replace | $7,040 |
| 58 | Pool deck, BreezeBrella frame | $17,160 |
| 59 | Pool deck, BreezeBrella fabric | $2,200 |
| Total Scheduled Replacements | | $35,000 |

| Item | 2058 - YEAR 33 | $ |
|---|---|---|
| 4 | Asphalt access drive and parking, seal coat | $7,773 |
| 6 | Asphalt path, seal coat and crack repair | $14,975 |
| 12 | Concrete steps (6% allowance) | $700 |
| 26 | Stucco, recoating | $5,850 |
| 29 | Door, steel, flush (3' X 6'8") | $8,000 |
| 30 | Exterior lighting, wall mount & flood (allowance) | $1,980 |
| 66 | Pool furniture (allowance) | $3,300 |
| 67 | Pavilion, laminated wood with wood post structure | $50,160 |
| 79 | Electric panels and breakers, 400 amp | $3,500 |
| Total Scheduled Replacements | | $96,238 |

| Item | 2059 - YEAR 34 | $ |
|---|---|---|
| 8 | Concrete, sidewalk, flatwork (6% allowance) | $7,560 |
| 9 | Concrete curb, with sidewalk (6% allowance) | $540 |
| 10 | Concrete curb and gutter (6% allowance) | $504 |
| 50 | Swimming pool, pump (7.5hp) | $7,150 |
| Total Scheduled Replacements | | $15,754 |

| Item | 2060 - YEAR 35 | $ |
|---|---|---|
| 13 | Concrete steps (6% alowance) | $700 |
| 14 | Metal pipe railing, 1 strand (pool steps) | $5,500 |
| 15 | Wood, PTL deck with wood benches | $2,250 |
| 17 | Site light, standard head | $3,400 |
| 56 | Pool deck, concrete (6% allowance) | $8,120 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | $15,526 |
| 74 | Hockey court, color coat | $6,654 |
| Total Scheduled Replacements | | $42,150 |

## PROJECTED REPLACEMENTS

| Item | 2061 - YEAR 36 | $ |
|---|---|---|
| 7 | Flagstone pavers, repoint/reset | $6,120 |
| 40 | Storage shed, asphalt shingles roofing | $3,150 |
| 41 | Storage shed, door, steel , flush (3'6" X 6'8") | $1,600 |
| 42 | Storage shed, door, steel, flush (5' X 6'8") | $2,200 |
| 66 | Pool furniture (allowance) | $3,300 |
| | Total Scheduled Replacements | $16,370 |

| Item | 2062 - YEAR 37 | $ |
|---|---|---|
| 35 | Snack Bar shed, door, steel, flush (3' X 6'8") | $1,600 |
| 36 | Snack Bar shed, door, steel flush (5' X 6'8") | $2,200 |
| 61 | Diving board (16') | $4,500 |
| 72 | Tennis Court Fence, 10' chain link (fabric only) | $4,086 |
| 76 | Hockey court, 3' chain link (fabric only) | $120 |
| 78 | Picnic/Observation court, 8' chain link (fabric only) | $1,512 |
| | Total Scheduled Replacements | $14,018 |

| Item | 2063 - YEAR 38 | $ |
|---|---|---|
| 3 | Asphalt access drive and parking, mill & overlay | $76,171 |
| 4 | Asphalt access drive and parking, seal coat | $7,773 |
| 5 | Asphalt access drive and parking, speed bumps | $3,000 |
| 6 | Asphalt path, seal coat and crack repair | $14,975 |
| 60 | Diving stand | $30,000 |
| 62 | Diving board (16') | $4,500 |
| | Total Scheduled Replacements | $136,418 |

| Item | 2064 - YEAR 39 | $ |
|---|---|---|
| 12 | Concrete steps (6% allowance) | $700 |
| 66 | Pool furniture (allowance) | $3,300 |
| | Total Scheduled Replacements | $4,000 |

| Item | 2065 (beyond study period) | $ |
|---|---|---|
| 2 | Entrance monument, lighting | $300 |
| 8 | Concrete, sidewalk, flatwork (6% allowance) | $7,560 |
| 9 | Concrete curb, with sidewalk (6% allowance) | $540 |
| 10 | Concrete curb and gutter (6% allowance) | $504 |
| 11 | Concrete ramp | $2,280 |
| 16 | Site light, 30' steel pole | $28,400 |
| 18 | Perimeter Fence, 6' chain link (fabric only) | $5,775 |
| 70 | Tennis court/Pickle court, color coat (3 coats) | $15,526 |
| 74 | Hockey court, color coat | $6,654 |
| | Total Scheduled Replacements | $67,539 |

| Item | 2066 (beyond study period) | $ |
|---|---|---|
| 13 | Concrete steps (6% alowance) | $700 |
| 34 | Snack Bar shed, roll-up service window | $2,180 |
| 37 | Snack Bar shed, dbl. door commercial refrigerator | $2,300 |
| 56 | Pool deck, concrete (6% allowance) | $8,120 |
| | Total Scheduled Replacements | $13,300 |

# SECTION D - CONDITION ASSESSMENT

**General Comments.** MillerDodson Associates conducted a Reserve Study at Tanterra HOA in March 2025. Tanterra HOA appears to be generally in good to fair condition for a homeowner's association constructed between 1975 and 1980. A review of the Replacement Reserve Inventory will show that we anticipate 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.

**IMPORTANT NOTE**: This Condition Assessment is based upon visual and apparent conditions of the common elements of the community which were observed by the Reserve Analyst at the time of the site visit. This Condition Assessment does not constitute, nor is it a substitute for, a professional Structural Evaluation of the buildings, amenities, or systems. MillerDodson strongly recommends that the Association retain the services of a Structural Engineer to conduct thorough and periodic evaluations of the buildings, balconies, and any other structural components of the buildings and amenities of 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.

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## SITE ITEMS

**Entry Monument and Signage.** The Association maintains two entrance monuments, located at Heritage Hills Drive and Georgia Avenue, consisting of stone masonry columns and a wall with a carved stone signage panel on the roadside face. Various other community stone walls and the stone barbecue are also included in this component. The monument and sign, as well as the other stone work, appears to be in good to fair condition with age related wear and select motar deterioration noted.

Because the stonework has a very long life expectancy, we have excluded replacement of these walls. However, we recommend re-pointing, as needed, and have included funding for the periodic re-pointing 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 re-pointing of these joints and replacement of damaged stone is required to extend the life of the wall. The Association may want to consider applying a coating of Siloxane or other appropriate breathable sealants to mitigate water penetration and further degradation of the masonry work. The monuments and signs are lit by ground mounted lights. Other small miscellaneous signs are not considered in this study and should be replaced using other funds.




**Retaining Walls.** The Association maintains stone retaining walls within the pool area. The retaining walls are in generally good to fair condition with mortar joint deterioration and cracked stone. Retaining walls, in general, are designed to provide slope stabilization and soil retention by means of a structural system. Movement and displacement of any retaining wall is a sign of general settlement or failure. This typically is in the form of leaning and bowing and can involve the entire wall or localized sections of the wall. Typically, these types of movements are gradual and may require the replacement of the wall. Movement of retaining walls located near other buildings or structures may negatively affect the stability of the adjacent structure. These conditions can become extremely costly if not properly identified, monitored, and addressed.

Stone retaining walls can have an extended useful life of 50 years or more, and if stable, may only require periodic repointing and localized repair. Repoint is the process of raking out defective masonry joints and tooling new mortar into the joints. Properly mortared and tooled joints will repel the weather and keep water from penetrating the wall. Siloxane or other breathable sealants should be considered to provide additional protection to the wall from water penetration. This study assumes that repointing will be performed incrementally as needed to maintain the life of the wall. Retaining wall replacement can be costly, and early planning on the part of the Association can help to reduce the impact of this work on the community's budget in the future. We, therefore, recommend having a Professional Engineer inspect the walls and develop preliminary replacement alternatives and recommendations based on the site conditions, replacement costs, and recommended replacement wall types. This information can then be incorporated into future updates to the Reserve Study.

**Asphalt Pavement.** The Association is responsible for the access drive and parking areas for the community swimming pool, courts, and picnic area, as well as the asphalt walking paths. Other roadways are maintained by the City, County, or other municipality. In general, the Association's asphalt pavement in the parking area is in good condition. However, the asphalt pavement on the walking path appears to be in good to fair condition, with edge cracking and open cracks due to tree root damage noted. The Association reports that the parking areas were repaved and seal coated the walking paths were repaired and seal coated in late 2023. They also report that the use of the parking areas is seasonal.

Speed bumps are present within the parking area and appear to be in good condition. Speed bumps are a type of traffic calming measure used for slowing traffic. The 5 speed bumps within the community pool area have a rounded appearance which is 3.5 to 4 inches high at the center. The presence of speed bumps may complicate street resurfacing and impact stormwater runoff and snowplowing operations.

Asphalt pavement defects may include the following:

- Open Cracks. Locations where open cracks are allowing water to penetrate the asphalt base and the bearing soils beneath. Over time, water will erode the base and accelerate the deterioration of the asphalt pavement. If cracks extend to the base and bearing materials, remove the damaged areas and replace defective materials. As a part of normal maintenance, clean and fill all other cracks.
- Alligatoring. Locations where the asphalt has developed a pattern of cracking known as alligatoring. The primary cause of alligatoring is an unstable base. Once these cracks extend through the asphalt, they will allow water to penetrate the base, accelerating the rate of deterioration rate, eventually leading to potholes. The only solution is to remove the defective asphalt, compact the base, and install new base materials and asphalt.
- Improper Grading. Areas where the asphalt pavement is not properly graded result in the ponding of water. Proper grading of the asphalt pavement will require replacing portions of the asphalt. It may also require resetting improperly sloped curb and gutter segments that are not conveying water to the stormwater management system. If ponding is left unattended, it can result in unsafe travel areas by creating conditions for hydroplaning and pockets of ice to form.
- Potholes. Areas where potholes have formed as a result of full-depth pavement failure, including base materials. The repair will require the removal of the asphalt and base materials, installation and compaction of new base materials, and asphalt resurfacing.
- Depressions. Areas where the asphalt surface is depressed due to deformation in the surface or underlying layers. These depressions may continue to grow with exposure to traffic. Water ponding is evident in several of these areas. Repairing these areas will require the removal of the asphalt and base material and reinstallation, by compacting the new base material and resurfacing with asphalt.
- Wheel Rutting. Depressions along the wheel lines extend along portions of the roadway. Repairing these areas will require full-depth and full-width pavement replacement. Wheel rutting, if left unattended ,can adversely affect vehicle steering.
- Shoving. It occurs at locations of sharp braking or turning. The primary cause of this defect is large truck traffic. If addressed early, surface milling and overlay using a stiffer topcoat of asphalt pavement shoving can be mitigated.
- Tree Root Damage. This is also known as Heaving, Tree roots may cause heaving in the pavement surface. The repair of these areas requires the removal of the asphalt and the tree roots, then replenishing and re-compacting the base material and resurfacing the asphalt. Root trimming can also be an effective way to control this defect.
- Edge Cracking. Areas where asphalt pavement sections have developed cracks along the pavement edges due to improper confinement. The installation of curbs or a compacted gravel shoulder at the time of an overlay project can address this defect.
- Reflective Cracking. Reflective cracks occur when a new asphalt overlay is placed over an existing cracked pavement. With time and movement, existing cracks will migrate through the new asphalt. Installing a bridging membrane or fabric at the time of overlay can control reflective cracking.

A more detailed summary of pavement distress can be found at https://asphaltinstitute.org/engineering/maintenance-and-rehabilitation/pavement-distress-summary/. As a rule of thumb, asphalt should be overlaid when approximately 5% of the surface area is cracked or otherwise deteriorated. The normal service life of asphalt pavement is typically 18 to 20 years. In an effort to maintain the condition of the pavement throughout the community and ensure the longest life of the asphalt, we recommend that the Association adopt a systematic and comprehensive maintenance program that includes:

- Cleaning. Long-term exposure to oil or gas breaks down asphalt. Because this asphalt pavement is generally not used for long-term parking, it is unlikely that frequent cleaning will be necessary. When necessary, spill areas should be cleaned or patched if deterioration has penetrated the asphalt. This is a maintenance activity, and we have assumed that it will not be funded from Reserves.
- Crack Repair. All cracks should be repaired with an appropriate compound to prevent water infiltration through the asphalt into the base. This repair should be done annually. Crack repair is normally considered a maintenance activity and is not funded from Reserves. Areas of extensive cracking or deterioration that cannot be made watertight should be cut out and patched.
- Seal Coating. Pavement seal coating materials are designed to extend the life of asphalt from damage caused by UV degradation, gas/oil, road salt, and prevent water from entering into the pavement, which causes freeze/thaw cycle damage. Re-paving is very expensive, and with routine maintenance, the expense of repaving can be delayed.






**Flagstone Pavers.** Flagstone pavers provide a solid, decorative, and renewable surface that is part of the community pool area**.** The overall condition of the mortar grouted brick pavers is good to fair with age-related wear, which includes select cracking and settlement. The Association reports that the stone decking pavers were re-grouted in 2022. Defects may include the following:

- Cracking. Pavers compromised with cracks.
- Settlement. Surface areas that have settled.
- Delamination. Top of pavers separates and forming a rough surface.
- Failed Grout. Water penetration allows the base material to wash away.

To correct defects and provide the longest service life of the mortar grouted flagstone paver system, periodic resetting of the pavers is required. Re-setting provides an opportunity to replace broken unit pavers, fill in voids in the foundation material, level the surface, and replace the grout. We have included an allowance for periodic resetting and re-grouting of those portions of the system. Flagstone pavers have a long service life of 30 years or more, provided they are periodically maintained. Eventually, pavers will require large-scale replacement, particularly when identical paver units are no longer available.

**Concrete Work.** The concrete work includes the community curb and gutter, sidewalk, and concrete flatwork at the pool area, which includes steps and ramps. The Association reports that selecting concrete work to the curbs and gutters, sidewalks, and ramps was complete in 2023 and to the concrete steps in 2013. The standards we use for recommending replacement are as follows:

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

The concrete flatwork includes the community concrete flatwork at the community pool building, pavilion, horseshoe area, snack bar, and storage shed areas, steps, barrier curbs, monolithic curb, and sidewalks. It was noted that the concrete flatwork was replaced in 2013 along with the major renovation of the swimming pools. Generally, the concrete flatwork appears to be in good to fair condition with open cracks and spalling in select areas.

The curb and sidewalk along the east side of the parking area are monolithic units and are in good condition.

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Monolithic curbs and sidewalks, also called integral curb-walks, are a variation of barrier curbs. Barrier curbs perform the critical function of preventing vehicles from slipping away from the designated parking space. Barrier curbs cannot be driven over by most vehicles, i.e. they function like a permanent obstacle. The curb is poured at the same time as a concrete sidewalk, permanently joining the two components into one entity. The lack of seams helps to render more durability to the curb sections. As a result, wear and tear induced by vehicular traffic along the edges is neutralized to a greater extent. Lack of seams also neutralizes the chances of water penetration. However, this type of curb and sidewalk system makes replacing the individual sections difficult because the parts are interlocked. If part of the sidewalk is affected by cracking, settlement, tree roots, or spalling, both the curb and the sidewalk sections must be replaced, making the process much more expensive. The community pool area has concrete ramps leading from the pool building to the swimming pool areas and several sets of exterior steps that are constructed from poured concrete. The ramps and steps are currently in good condition.

**Metal Hand Railing.** The Association maintains metal piping handrails and railing posts that are embedded in concrete at the pool area. The railing is in good condition. With a program of periodic painting, the railing has an indefinite life expectancy. If left unattended, the pressure from expansive post rust can crack and damage the supporting material. As part of normal maintenance, we recommend the following:

- Remove the existing sealant completely.
- Clean, prime, and paint all posts, rails, and pickets.
- Apply an appropriate sealant around each post base.
- Tool and shape sealant to shed water from the post.

**Chain Link Fencing.** The Association maintains galvanized chain link fencing that surrounds the pool area and encloses the two pools, picnic area, pool building, and various sheds. The fencing appears to be in good to fair condition, with some leaning posts and fence sections. Fencing systems have a large number of configurations and finishes that can usually be repaired as a maintenance activity by replacing individual components as they become damaged or weathered. Protection from weed trimmer string during lawn maintenance can extend the useful life of some fence types. Protection from this type of damage is typically provided by applying herbicides around post bases or installing protective sheathing. Chain link fencing can have a useful life of 40 years or more. Periodic repair or replacement of posts or top rails may be required as regular maintenance.

The Association maintains steel fence posts and fasteners that are embedded in concrete or masonry. As part of normal maintenance, we recommend the following:

- Lift or remove ornamental base covers, if applicable.
- Remove the existing caulk completely.
- Clean, prime, and paint all posts.
- Apply an appropriate caulk around each post base.
- Tool and shape caulking to shed water from the post.
- Reinstall base covers, seal and paint all joints.

Fence posts can have an extended useful life if these simple maintenance activities are performed. If left unattended, the pressure from expansive post rust can crack and damage the supporting material.

**Wood Deck and Benches.** The Association maintains a small deck and benches near the horseshoe area. The deck and benches are constructed of Pressure Treated Lumber (PLT). A portion of the decking contains horizontal surfaces. Water tends to stand on the surfaces and soak into the wood. As the sun dries and pulls the moisture out of the wood, the wood shrinks, and cracks. The wood decking material, as well as the wood benches, should be sealed every two to three years.

**Water and Sanitary Sewer Lines/Laterals.** The Association is responsible for the water and sanitary sewer piping/lines that provide domestic water to the swimming pools, restrooms, locker rooms, and various buildings, and remove the free-flowing effluence from these areas to a septic sewer system. Responsibilities may include a network of piping that may include boxes, main lines, backflow valves, shutoff valves, cleanouts, manholes, and lateral lines. The piping can be galvanized steel, copper, or plastic.

The water and sanitary sewer lines/laterals are those portions of the underground utility system that extend from the pool area or common building to the water and sanitary sewer mains, typically located under or along the street. We have assumed an allowance to account for the approximate average distance from the face of the building to the water and sanitary sewer mains. To gain a better understanding of the condition of this facility's pipes and water supply lines, we recommend having an expert evaluation of the piping performed. This evaluation should provide an estimation of the remaining useful life of the piping systems, the condition of the water supply, and recommendations for a replacement to maximize the remaining useful life of this facility's piping systems.

**Septic System.** The cost associated with the replacement of a septic tank and leaching field can be significant. There are a number of factors that contribute to the cost of a new leaching field. Has there been an issue with contamination, does it need to be removed and replaced, is the old leaching field sitting in the water table, have jurisdictional guidelines changed? In order to obtain a clearer idea of the costs associated with a project of this nature, we recommend that the Association contact the local Health Department to obtain the list of licensed and insured septic installers for your community. We recommend that the Association obtain three bids on the work to be done. Every property poses different issues to deal with. The cost associated with systems of the type and location as the Courtyard, could easily reach $40,000 or more for a new system (total system). We have provided an allowance for routine maintenance of the system. Regular cleaning and pumping of the tank are considered a maintenance activity and are excluded from this study.

**Stormwater Management.** The stormwater management system consists of curbs and storm drains. Stormwater runs from the curbs or catch basins into the storm drains. Water then drains into various detention basins or retention ponds surrounding the community or community storm systems. The system appears to be in good condition. The community should maintain the stormwater management system to function as designed, limit erosion, and channel water to the appropriate drainage outlets. No engineering drawings or stormwater management plans were available to accurately determine water flow from the roadway to the adjacent waterways. Accordingly, we have provided an estimate of the approximate replacement or refreshment cost based on our experience with other communities of similar size and our inspection of the visible components while on site. Inspection of the underground lines and structures is beyond the scope of work for this study.

## EXTERIOR ITEMS

**Pool Building.** The community pool building contains two shower/restrooms, life guard rooms, and a utility room. The pool building roof consists of asphalt shingles reported to have been replaced in 2020 with 50 year warranty Certain Landmark Pro Architectural shingles. The asphalt shingles appear to be in good condition. Annual inspections are recommended, with cleaning, repair, and mitigation of vegetation performed as needed. Access, inspection, and repair work should be performed by contractors and personnel with the appropriate access equipment who are experienced in the types of roofing used for the facility.

Skylights. Four Velux CO6 fixed deck mounted skylights with new flashing were installed as part of the roof covering installation.

- Gutter and Downspouts. 187 lf. of 6 aluminum gutters and 130 lf. of downspouts were installed as part of the roof covering replacement.

- Trim capping. Approximately 1400 square feet of aluminum capping was installed with the roof covering installation.
- Siding and Trim. The exterior of the community pool building is clad with vinyl siding and trim reported to have been installed in 2021. The siding and trim are in good condition.

A section of the exterior walls is stucco-covered masonry. In this study, we provide an allowance for incremental stucco repairs every 10 years. Further inspection of the stucco and repair of any latent and concealed damage is not accounted for in this study. See http://mdareserves.com/resources/links/building-exterior for additional information.

- Soffits. The existing soffits are exposed to T&G roof sheathing. Vinyl soffit material was reportedly installed in 2021. The soffits are in good condition.
- Windows. The building has four aluminum windows, located in the lifeguard room. In general, we recommend coordinating the replacement of these units with other exterior work, such as siding and roof replacements. The weather tightness of the building envelope often requires transitional flashing and caulking that should be performed in coordination with each other. Warranties and advantages in 'economy of scale' can often result in lower overall replacement costs and results that are more reliable. Lastly, coordinated replacements offer the opportunity to correct initial construction defects and improve the effectiveness of details with improved construction techniques and materials.
- Doors. The building contains 5 metal exterior doors and frames and one sliding glass door unit. The metal doors and frames are generally in good to fair condition.

For more information, please see our links at https://millerdodson.com/resources/links/building-exterior.

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**Sheds.** The Association is responsible for three wood framed sheds that are used for a snack bar and storage purposes. Snack bar shed. The Association purchased a 24' X 26' wood framed shed in 1997. The Association installed vinyl siding on the shed in 2013. We have programmed replacement of the roof, siding, doors, service window, and awning based on the age and condition of the component. In general, the snack bar shed is in fair condition due to age related deterioration.

Storage shed. The Association purchased a 24' X 26' wood framed shed, clad with OSB T1-11 siding in 2006. The Association reported plans to install vinyl siding on the shed, when the OSB T1-11 deteriorates. We have programmed replacement of the roof, siding, and doors based on the age and condition of the component. In general, the storage shed is in fair condition with damaged siding and roof degradation.

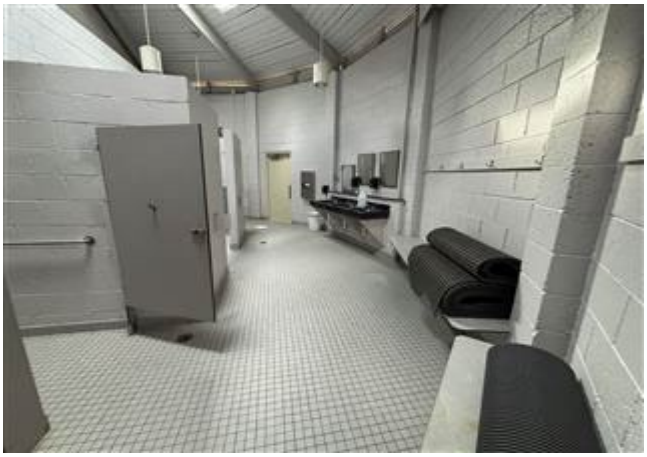
Utility Shed. The Association maintains a small 8' X 8' wood framed utility shed that is in poor condition. We have programmed replacement of the shed with a pre-cut unit. It is our understanding that volunteer labor will be utilized to assemble and install the unit.

## INTERIOR ITEMS

**Building Interiors.** The community pool building interior contains two restroom/shower rooms and a lifeguard room for the swimming pool are located in the location. The overall condition of the pool building interior is generally good to fair condition with age related wear. The Association reported no operational issues.

Listed below are the major components of the interior rooms:

- Ceramic Floor Tile. The ceramic tile in the two restrooms/shower rooms and lifeguard room is in fair condition.
- Ceiling. The ceilings of the locker rooms and lifeguard rooms appear to be in fair condition.
- Walls. The walls in both restroom/shower rooms are painted concrete masonry block (CMU) and are in good to fair condition.
- Light Fixtures. Illumination is provided by ceiling-mounted pendant light fixtures. The fixtures are in good working condition and provide adequate lighting. Fixtures of this type have a typical service life of 25 years.
- Shower and Restroom Fixtures. All shower and restroom fixtures are in good to fair condition. We have assumed a service life of 20 years for the fixtures and that all fixtures will be replaced at the same time as part of a general renovation of the restroom.
- Lifeguard Room. The interior walls are covered with painted siding. We have provided funding to renovate the room. We have reserved for the defibrillator, computer, and PA system separately. The Association reports that the furnishings will be replaced with Operating Budget funds.



## RECREATION ITEMS

**Swimming Pool.** The community operates an outdoor pool and a wading pool of concrete construction. mThe pools were empty and winterized at the time of the site visit. Overall, the swimming pools appeared to be in good condition. No issues were communicated. The white coat was replaced or upgraded, and waterline tile was refurbished in late 2020.

Listed below are the major components of the pool facilities:

- Pool Shell. The shell for the swimming pool and wading pool was replaced in 2013 and is in good condition.
- Pool Deck. The pool has a concrete deck. The overall condition of the deck is good to fair condition with limited cracks noted.
- Whitecoat. The pool whitecoat was replaced with a Diamond Brite finish in late 2020. The white coat is in good condition.
- Waterline Tile. The waterline tile was refurbished as part of the white coating installation. The waterline tile is in good condition.
- Coping. The pool and wading pool is edged with precast concrete coping. The coping is in good condition.
- Dive Stands and Boards. The dive stands were refurbished in 2024 and the dive boards were refurbished in 2023 and 2024 respectively.
- Pool Filter System. The pool commercial sand filter system was replaced in 2011 and is in good operating condition. We have assumed a service life of 30 years for the filter system, based on Association changing the sand and gravel media periodically.
- Pool Pump System. The pool pump system was reported to be in good operating condition. The Association has a spare pump motor to be installed in the system in the event of a pump failure.
- Wading Pool Filter System. The wading pool sand filter is in good operating condition.
- Wading Pool Pump System. The pump system was reported to be in good operating condition.
- Chlorination tanks and pumps. The chlorination system consists of two plastic tanks and two programmable pumps.
















A.O.Smith

- Exterior shower stations. There are four exterior shower stations located around the pool. The exterior shows appear to be in good condition but they were not operational during the winter months.

- Pool Perimeter Fence. The swimming pool area, including the Horseshoe area, is enclosed by a chain link fence. The fence fabric was replaced in 2011 and is in fair condition.

- Pool Aluminum Fence. The swimming pool and wading pools are enclosed by an aluminum fence that is in good condition.

- Sun Shades and BreezeBrella. The pool area has two BreezeBrella units, and a sun shade is installed at the wading pool. The fabric coverings were not available for the site visit.
- Security System. The Association installed three camera security surveillance system to monitor the community pool. The wired security cameras are mounted on a steel light pole adjacent to the pool. Outdoor security cameras are specifically designed with a wide field of view that enhances surveillance of outdoor areas, have night vision capabilities, and are weather resistant.

**Pavilion and Gazebo .** The Association maintains a pavilion and a gazebo of wood construction. The pavilion has an asphalt shingle roof with a concrete floor. The pavilion roof was replaced in 2019 according to the Association. The pavilion includes ceiling fans and ceiling mounted lights. The structure and roof of the pavilion appear to be in good condition with limited concrete cracks.

The gazebo has an asphalt roof with a wood floor. The gazebo appears to be in fair to poor condition with age related wear and broken boards. The rate of deterioration of the wood components of the pavilion and gazebo will vary with the level of maintenance performed on those components as well as the exposure of the pavilion and gazebo to the elements.

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**Courts.** The community maintains a facility that contains two tennis courts, one lined for pickleball, a roller hockey court, and an observation/picnic area adjacent to the hockey court. Listed below are the major components of the court facilities:

- Asphalt Pavement (base layer). We have assumed a service life of 20 to 30 years for the asphalt base layer.
- Color Coat (surface layer). Annual cleaning is recommended to maintain the surface of the court. The base of a tennis court is subject to cracking and low spots known as “birdbaths” that can occur from weather and earth movement. A program to address cracks as they appear will help to prolong the useful life of the color coat. We have assumed a service life of five to ten years for the color coat.
- Fencing. The Association plans on replacing the fence fabric with volunteer labor. Posts and fencing should be inspected, repaired, and painted as needed to prolong their economic life. Periodic inspection of the posts, fencing, gates, hinges, and latches should be inspected, repaired, and painted as needed to prolong their economic life. It is also recommended that posts and footings be protected to prevent soil erosion.
- Net Posts. We have assumed that the new posts will be replaced when the asphalt pavement is replaced.
- Tennis/Pickleball Court. The two courts are asphalt based with a chain linked perimeter fence. One court is lined for pickleball. The tennis/pickleball courts appeared to be in good condition, with some surface bubbles noted.

- Hockey Court. A 5,545 square foot asphalt surfaced area adjacent to the tennis court is used for roller hockey. The court surface is in poor condition with numerous open cracks.

- Observation/Picnic Area. A 1,330 square feet paved area is adjacent to the roller hockey court and is used as a picnic/observation area. The area is enclosed by a chain link fence and includes several picnic tables. The surface area is in poor condition.

## BUILDING SYSTEMS

**Building Piping.** Copper water supply pipes have been used throughout the facility. No building piping issues were communicated. As a result of changes in water chemistry, brought on by federal clean water legislation, piping has been developing pin-hole leaks, which can lead to higher maintenance costs and a shorter than normal service life. For further information about the problem and research that is being conducted, please see the WSSC link on our website at

https://millerdodson.com/resources/links/building-system. In addition, in some cases, the pipe and fitting materials are of poor quality, and pin-hole leaks have been reported in as little as three years.

Water quality, in particular the Ph of the water, is critical to the longevity of these systems, and typically, the pressurized water supply lines are the most problematic followed by the central heating and cooling lines. Because of these problems, the facility's piping will require replacement at some point in time. As a less expensive alternative to the extremely costly work of re-piping a building, systems have been developed to clean and epoxy-line the interior surfaces of these, including other types of pipes. In addition, new pipe materials are on the market.

Please note that the timeframe for repiping a facility can vary widely, and the estimation of the remaining economic life is highly speculative. Given the age of the facility, the Association should be aware of the various technologies available for pipe replacement and pipe lining, including traditional pipe replacement, replacement with CPVC and other synthetic pipes, and linings from companies such as Ace Duraflo and Curaflo. However, Miller+Dodson does not endorse any specific process or company. For budgeting purposes, an allowance every 25 years is included in this study for repiping work. Please note that this work has a high degree of variability depending on the layout of the facility and accessibility to the piping components. To gain a better understanding of the condition of this facility's pipes and water supply lines, we recommend having an expert evaluation of the piping performed. This evaluation should provide an estimation of the remaining useful life of the piping systems, the condition of the water supply, and recommendations for replacement to maximize the remaining useful life of this facility's piping systems.

**Hot Water Heaters.** The Association is responsible for two (2) 120-gallon electric hot water heaters that are located in the pool building and serve the outside showers, restrooms, and locker rooms. The hot water heaters appear to be in good condition and operating normally. The Association reports that 80 gallon tanks will be used in the future.

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 and limited common elements of the property to ascertain their remaining useful life and replacement cost. Our evaluation assumed that all components met building code requirements in force at the time of construction. Our visual survey was conducted with care by experienced persons, but no warranty or guarantee is expressed or implied.

End of Condition Assessment

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## 1. COMMON INTEREST DEVELOPMENTS - AN OVERVIEW

Over the past 40 years, the responsibility for many services, facilities, and infrastructure around our homes has shifted from the local government to Community Associations. Thirty years ago, a typical new townhouse 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 approximately 500 Community Associations in the United States. According to the 1990 U.S. Census, there were roughly 130,000 Community Associations. The Community Associations Institute (CAI), a national trade association, estimated in 2020 that there were more than 350,000 communities with over 75 million residents.

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 issues. Although Community Associations have succeeded in solving many short-term issues, many Associations still fail to properly plan for the significant expenses of replacing community facilities and infrastructure components. When inadequate Replacement Reserve funding results in less than timely replacements of failing components, homeowners are invariably exposed to the burden of special assessments, major increases in Association fees, and often 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 major repair or replacement, a general view of the physical condition of these components, and an effective financial plan to fund projected periodic replacements or major repairs. The Replacement Reserve Study consists of the following:

**Replacement Reserve Study Introduction**. The introduction provides a description of the property, an Executive Summary of the Funding Recommendations, Level of Reserve Study service, and a statement of the Purpose of the Replacement Reserve Study. It also lists documents and site evaluations upon which the Replacement Reserve Study is based and provides the Credentials of the Reserve Analyst.

**Section A Replacement Reserve Analysis.** Many components that are owned by the Association have a limited life and require periodic replacement. Therefore, it is essential that the Association have a financial plan that provides funding for the timely replacement of these components in order to protect the safety, appearance, and ultimately, the property value of the homes in the community. In conformance with National Reserve Study Standards, a Replacement Reserve Analysis evaluates the current funding of Replacement Reserves as reported by the Association and recommends annual funding of Replacement Reserves using the Threshold Cash Flow Method. See the definition below.

**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. Replacement Reserve Inventory includes estimates of the Normal Economic Life (NEL) and the Remaining Economic Life (REL) for those components whose replacement is scheduled for funding from Replacement Reserves.

The Replacement Reserve Inventory also provides information about those components that are excluded from the Replacement Reserve Inventory and whose replacement is not 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.** The observed condition of the major items listed in the Replacement Reserve Inventory is discussed in more detail. The Condition Assessment includes a narrative and photographs that document conditions at the property observed at the time of 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.).

### 3. METHODS OF ANALYSIS

The Replacement Reserve industry generally recognizes two different methods of accounting for Replacement Reserve Analysis, the Cash Flow Method. Due to the difference in accounting methodologies, these methods lead to different calculated values for the Recommended Annual Funding to the Reserves. A brief description is included below:

**Cash Flow Threshold Method.** This Reserve Study uses the Threshold Cash Flow Method, sometimes referred to as the "Pooling Method." It calculates the minimum constant annual funding to reserves (Minimum Annual Deposit) required to meet projected expenditures without allowing total reserves on hand to fall below the predetermined Minimum Balance, or Threshold, in any year.

### 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. The Reserve Analyst must 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 parties responsible for maintaining the community after acceptance of our proposal. Upon submission of the Initial Study, the Study should be reviewed by the Board of Directors and the individuals responsible for maintaining the community. We depend upon the Association for correct information, documentation, and drawings. We also look to the Association representative to help us fashion the Reserve Study so that it reflects what the community hopes to accomplish in the coming years.

**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 the cost of regular 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.

**Cash Flow Analysis.** See the Cash Flow Threshold Method, above.

**Contingency.** An allowance for unexpected requirements. The “Threshold” used in the Cash Flow Method is a predetermined minimum balance that serves the same purpose as a “contingency.” However, IRS Guidelines do not allow for a “contingency” line item in the inventory. Therefore, it is built into the mathematical model as a “Threshold.”

**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 Normal Economic Life (NEL).** 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 Remaining Economic Life (REL).** 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, 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.

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

**Minimum Balance.** Otherwise referred to as the Threshold, this amount is used in the Cash Flow Threshold Method only. Normally derived using the average annual expenditure over the study period, this is the minimum amount held in reserves in the Peak Year.

**National Reserve Study Standards.** A set of Standards developed by the Community Associations Institute in 1995 (and updated in 2017) which establishes the accepted methods of Reserve Calculation and stipulates what data must be included in the Reserve Study for each component listed in the inventory. These Standards can be found at CAIonline.org.

**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.)

**Number of Years of the Study.** The number of years into the future for which expenditures are projected and reserve levels calculated. This number should be large enough to include the projected replacement of every item on the schedule, at least once. The Reserve Study must cover a minimum of 20 years to comply with the National Reserve Study Standards. However, your study covers a 40-year period.

**Peak Year.** In the Cash Flow Threshold Method, a year in which the reserves on hand are projected to fall to the established threshold level. See Minimum Balance, above.

**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.

**Replacement Reserve Study.** An analysis of all of the components of the common property of a Community Association for which 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, Normal Economic Life, and Remaining Economic Life. The objective of the study is to calculate a Recommended Annual Funding for 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 | **ls** lump sum | **sy** square yard |
| **ft or lf** linear foot | **pr** pair | **cy** cubic yard |
| **sf** square foot | | |

What is a Reserve Study?
Who are we?


https://youtu.be/m4BcOE6q3Aw

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


https://youtu.be/40SodajTW1g

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

https://youtu.be/pYSMZO13VjQ

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


https://youtu.be/Qx8WHB9Cgnc

What's in a Reserve Study and what's out?
Improvement/Component, what's the difference?


https://youtu.be/ZfBoAEhtf3E

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


https://youtu.be/1J2h7FIU3qw

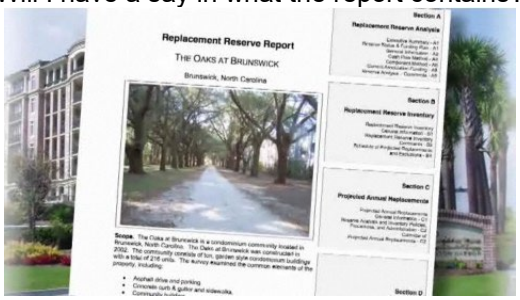
What is my role as a community Board Member?
Will a Reserve Study meet my needs?

https://youtu.be/aARD1B1Oa3o

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

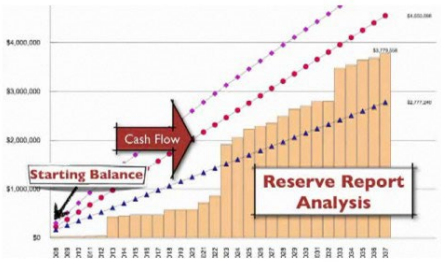
https://youtu.be/diZfM1IyJYU

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




https://youtu.be/qCeVJhFf9ag

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

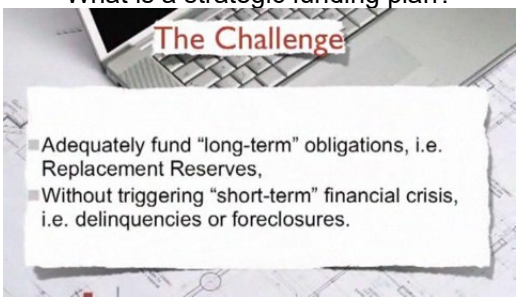



https://youtu.be/SePdwVDvHWI

How are interest and inflation addressed?
Inflation, what should we consider?

https://youtu.be/W8CDLwRIv68

A community needs more help, where do we go?
What is a strategic funding plan?




https://youtu.be/hIxV9X1tIcA