# T R O W E R

## RESERVE STUDY BY TROWER

# Benedict Hills Estates Association

**Report Completed: April 22, 2019**




Phone: 858-638-9227
Fax: 858-638-9226
e-mail: ptrower@reservestudies.com
www.reservestudies.com

# RESERVE STUDY BY TROWER
# EXECUTIVE SUMMARY

## Benedict Hills Estates Association
## Beverly Hills, CA

229 Units

Site Inspection: March 29, 2019

### Accounting Dates

| | | |
|---|---|---|
| Fiscal Year End: | December 31, 2019 | |
| Budget Year Start: | January 1, 2020 | |
| Budget Year End: | December 31, 2020 | |
| Current Annual Allocation | $47,112 | per unit per month:$17.14 |

### Projections for Fiscal Year Ending December 31, 2019

| | | |
|---|---|---|
| Reserve Fund Balance | $1,124,264 | |
| Fully-Funded Balance | $1,425,556 | |
| Percentage Funded | 79% | |
| Surplus (deficit) | ($301,292) | per unit: ($1,316) |
| Replacement Cost | $1,676,243 | |

### Recommended Funding

| | Annual Allocation | Per Unit per Month | Annual Disbursements | Year-End Reserve Bal. | Fully-Funded Reserve Bal. | Percent Funded |
|---|---|---|---|---|---|---|
| Year 1 | $128,473 | $46.75 | $84,499 | $1,165,729 | $1,511,926 | 77% |
| Year 2 | $132,327 | $48.15 | $97,523 | $1,197,429 | $1,591,182 | 75% |
| Year 3 | $136,297 | $49.60 | $99,973 | $1,230,575 | $1,674,332 | 73% |
| Year 4 | $140,386 | $51.09 | $103,528 | $1,264,127 | $1,760,456 | 72% |
| Year 5 | $144,597 | $52.62 | $95,105 | $1,310,795 | $1,862,346 | 70% |

| | |
|---|---|
| Interest rate used in projections: | 0.15% |
| Inflation rate used in projections: | 3.00% |

Date Printed: 4/22/2019

## PROPERTY DESCRIPTION

This study generates reserve funding recommendations to the Board of Directors based on the actual balance, projected expenditures and income.

Data gathered through conversations with Ms. Jennifer Franchina, Claire Carafello, vendors and a site inspection on March 29, 2019.

The Benedict Hills Estates Association, located in Beverly Hills, CA, has 229 units and was completed in 1978. This development is 41 years old. The association is responsible for sustaining all common areas as described within.

## FINANCIAL ANALYSIS:

| (Recommended Allocation in Dashed Box) | Per Year | Per Month | Per Unit Per Month |
|---|---|---|---|
| ALLOCATION BUDGETED IN 2019 | 47,112 | 3,926.00 | 17.14 |
| STRAIGHT-LINE ALLOCATION IN 2020 (WITHOUT DEFICIT REDUCTION) | 128,473 | 10,706.08 | 46.75 |
| STRAIGHT-LINE ALLOCATION IN 2020 (WITH DEFICIT REDUCTION) | 148,586 | 12,382.17 | 54.07 |
| Recommended Annual Allocation plus any underfunded balance divided by the years remaining until replacement of each component. | | | |
| MINIMUM CASH BALANCE IN 2020 | 198,765 | 16,563.75 | 72.33 |

**PERCENTAGE OF ACTUAL RESERVES AT FISCAL YEAR END VERSUS FULLY-FUNDED RESERVES AT FISCAL YEAR END: 79%**

## CA Civil Code 5570 Assessment and Reserve Funding Disclosure Summary

California Civil Code section 5300 requires that this Assessment and Reserve Funding Disclosure Summary be distributed to all owners not less than thirty (30) days nor more than ninety (90) days prior to the beginning of the Association's fiscal year, along with the Association's pro forma Operating Budget or Summary. The requried disclosures shall be summarized in the following format pursuant to California Civil Code 5570.

(1) The current regular assessment per ownership interest is $17.14 per unit, per month, into reserves in fiscal year ending 12/31/19

Note: Fractional responsibility is not calculated in this study. If assessments vary by the size or type of ownership interest, the assessment applicable to each ownership interest will need to be determined.

(2) Additional regular or special assessments that have already been scheduled to be imposed or charged, regardless of the purpose, if they have been approved by the Board and/or members: N/A

(3) Based upon the most recent reserve study and other information available to the Board of Directors, will currently projected reserve allocations and account balances be sufficient at the end of each year to meet the Association's obligation for repair and/or replacement of major components during the next 30 years:

Yes No X

*This question cannot at this time be answered as a definitive "yes" or "no". Reserve Studies prepared by TROWER utilize estimates of replacement value and life expectancy of the components which the Association is obligated to maintain. However, some items may last a longer or shorter time than estimated, or unanticipated events or disasters may occur which affect the reserve funds. Thus, the replacement costs and life expectancy will vary from the reserve study being performed, by inflation, weather, earthquakes, building code changes and other factors beyond the control of the Association or TROWER projected over the thirty (30) year time period referred to above. Currently, please note that California law currently does not require reserve funds to be funded 100% to cover a period of thirty (30) years and studies must be reviewed and updated annually.*

(4) If the answer to (3) is no, what additional assessments or other contributions to reserves would be necessary to ensure that sufficient reserve funds will be available each year during the next 30 years that have not yet been approved by the Board or the members.

Increase the per unit monthly reserve contribution to $46.75 in fiscal year ending 12/31/2020

*This question cannot at this time be answered with a definitive contribution for the next 30 years. Reserve Studies prepared by TROWER utilize estimates of replacement value and life expectancy of the components which the Association is obligated to maintain. However, some items may last a longer or shorter time than estimated, or unanticipated events or disasters may occur which affect the reserve funds. Thus, the replacement costs and life expectancy will vary from the reserve study being performed, by inflation, weather, earthquakes, building code changes and other factors beyond the control of the Association or TROWER projected over the thirty (30) year time period referred to above.*

(5) All major components are included in the reserve study and are included in its calculations except those components that the board has determined will not be replaced or repaired.

(6) Based on the method of calculation in paragraph (4) of subdivision (b) of Section 5570, the estimated amount required in the reserve fund at the end of the current fiscal year is $1,425,555.57, based in whole or in part on the last reserve study or update prepared by TROWER as of 12/31/19. The projected reserve fund cash balance at the end of the current fiscal year is $1,124,263.72, resulting in reserves being 78.9 percent funded at this date, with a reserve deficit of $1,315.68 per unit.

(7) Based on the method of calculation in paragraph (4) of subdivision (b) of Section 5570 of the California Civil Code, the estimated amount required in the reserve fund at the end of each of the next five budget years is:

2020: 1,511,926
2021: 1,591,182
2022: 1,674,332
2023: 1,760,456
2024: 1,862,346

The projected reserve fund cash balance and percent funding in each of those years, taking into account only assessments already approved and other known revenues, is:

2020: 1,084,307 (71.7% funded)
2021: 1,032,019 (64.9% funded)
2022: 978,536 (58.4% funded)
2023: 922,737 (52.4% funded)
2024: 877,251 (47.1% funded)

If the reserve funding plan recommended by TROWER is approved by the association and implemented, the projected reserve fund cash balance and percent funding in each of those years is:

2020: 1,165,729 (77.1% funded)
2021: 1,197,429 (75.3% funded)
2022: 1,230,575 (73.5% funded)
2023: 1,264,127 (71.8% funded)
2024: 1,310,795 (70.4% funded)

NOTE: The financial representations set forth in this summary are based on the best estimates of the preparer at that time. The estimates are subject to change. At the time this summary was prepared, the assumed long-term before-tax interest rate earned on reserve funds was 0.15 percent per year, and the assumed long-term inflation rate to be applied to major component repair and replacement costs was 3.00 percent per year.

**For the purposes of preparing a summary pursuant to this section:**

(1) "Estimated remaining useful life" means the time reasonably calculated to remain before a major component will require replacement.

(2) "Major component" has the meaning used in Section 5550. Components with an estimated remaining useful life of more than 30 years may be included in a study as a capital asset or disregarded from the reserve calculation, as long as the decision is revealed in the reserve study report and reported in the Assessment and Reserve Funding Disclosure Summary.

(3) The form set out in subdivision (a) shall accompany each annual budget or summary thereof that is delivered pursuant to Section 5300. The form may be supplemented or modified to clarify the information delivered, so long as the minimum information set out in subdivision (a) is provided.

(4) For the purpose of the report and summary, the amount of reserves needed to be accumulated for a component at a given time shall be computed as the current cost of replacement or repair multiplied by the number of years the component has been in service divided by the useful life of the component. This shall not be construed to require the Board to fund reserves in accordance with this calculation.

TROWER has made a reasonable effort to ensure this disclosure summary is accurate. The information is deemed reliable as of the date of this disclosure summary, but is not guaranteed. TROWER has obtained certain information, documentation and materials from the Association agent and this disclosure summary is based upon the accuracy of such information. Material inaccuracies could adversely affect this disclosure summary and TROWER is not responsible for such inaccuracies. The Association, by accepting this disclosure summary, agrees to release TROWER from any claims, demands or damages and further agrees to indemnify, defend and hold harmless TROWER from and against any and all liability, damages, losses, claims, demands, or lawsuits arising out of or relating to this disclosure summary.

**Reserve Summary By TROWER** — **Fiscal Year End: December 31, 2019**

**Site Inspection On: March 29, 2019**

**Benedict Hills Estates Association** — **Number of Units: 229**

**Completion Date of Report: April 22, 2019**

| CATEGORY / Component | Est. Comp. Qty | Est. Unit Cost | Unit Type | Estimated Cost to Replace | Life Expectancy Normal | Life Expectancy Rmng | Source & Condition See Legend | Fully-Funded Allocation in 2020 | Fully-Funded Balance @ FYE2019 | Projected Balance @ FYE | Under Funded | Allocation w\Deficit Reduction |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CONCRETE** | | | | | | | | | | | | |
| Swales 20% | 10,159 | 325 | LnFt | 660,335 | 50 | 9 | 1,3,5 G-F | 13,207 | 541,475 | 473,581 | (67,894) | 20,750 |
| Street Drains 30% | 12 | 5090 | Estimate | 18,324 | 60 | 19 | 3,5 G-F | 305 | 12,521 | 0 | (12,521) | 964 |
| **Subtotal** | | | | 678,659 | | | | 13,512 | 553,996 | 473,581 | (80,415) | 21,715 |
| **VERY DIFFICULT ACCESS TO SLOPE AREAS REQUIRING SWALE REPAIR AND REPLACEMENT (1)** | | | | | | | | | | | | |
| **SEWER LINES** | | | | | | | | | | | | |
| Pipe Clearing | 1 | 2038 | Contract | 2,038 | 1 | 1 | 3,5 G-F | 2,038 | 0 | 0 | 0 | 2,038 |
| **Subtotal** | | | | 2,038 | | | | 2,038 | 0 | 0 | 0 | 2,038 |
| **LANDSCAPE** | | | | | | | | | | | | |
| Improvements | 1 | 80000 | Annual | 80,000 | 1 | 1 | 1,3,5 G-F | 80,000 | 0 | 0 | 0 | 80,000 |
| **Subtotal** | | | | 80,000 | | | | 80,000 | 0 | 0 | 0 | 80,000 |
| **IRRIGATION** | | | | | | | | | | | | |
| Electrical Pedestal | 1 | 1800 | Unit | 1,800 | 35 | 35 | 4,5 G | 51 | 0 | 0 | 0 | 51 |
| Electrical Pedestal | 10 | 3000 | Unit | 30,000 | 50 | 9 | 3,5 F-P | 600 | 24,600 | 21,515 | (3,085) | 943 |
| Controllers | 13 | 765 | Unit | 9,945 | 12 | 4 | 3,5 G-F | 829 | 6,630 | 6,630 | 0 | 829 |
| Backflow Valve 2" | 1 | 1813 | Unit | 1,813 | 25 | 24 | 4,5 G | 73 | 73 | 0 | (73) | 76 |
| Backflow Valve 2" | 1 | 1813 | Unit | 1,813 | 25 | 19 | 3,5 G | 73 | 435 | 0 | (435) | 95 |
| Backflow Valve 2" | 1 | 1813 | Unit | 1,813 | 25 | 17 | 3,5 G | 73 | 580 | 0 | (580) | 107 |
| Backflow Valves 2" | 1 | 1813 | Unit | 1,813 | 32 | 6 | 3,5 F | 57 | 1,473 | 1,473 | 0 | 57 |
| Backflow Valves 1.5" | 1 | 1337 | Unit | 1,337 | 28 | 2 | 3,5 F | 48 | 1,242 | 1,242 | 0 | 48 |
| Shut Off Valves | 1 | 727 | Unit | 727 | 12 | 3 | 3,5 G-P | 61 | 545 | 545 | 0 | 61 |
| Shut Off Valves | 12 | 727 | Unit | 8,724 | 12 | 3 | 3,5 G-P | 727 | 6,543 | 6,543 | 0 | 727 |
| Automatic Valves | 25 | 342 | Unit | 8,550 | 5 | 2 | 3,5 G-F | 1,710 | 5,130 | 5,130 | 0 | 1,710 |
| Replace Lines 45% | 35,556 | 53 | LnFt | 847,211 | 50 | 9 | 3,5 F | 16,944 | 694,713 | 607,605 | (87,108) | 26,623 |
| **Subtotal** | | | | 915,546 | | | | 21,244 | 741,964 | 650,683 | (91,280) | 31,325 |

**ALL GALVINIZED LINES WILL NEED TO BE REPLACED WITH PVC IN THE FUTURE Paid By Special Assessment (5)**

**TREE TRIMMING, BRUSH AND NATURAL SLOPE AREA Maintenance or Contingency Expense (5)**

**ANY COMPONENTS NOT LISTED ABOVE Maintenance or Homeowner Expense (5)**

**Reserve Summary By TROWER** — **Fiscal Year End: December 31, 2019**

**Site Inspection On: March 29, 2019**

**Benedict Hills Estates Association** — **Number of Units: 229**

**Completion Date of Report: April 22, 2019**

| CATEGORY / Component | Est. Comp. Qty | Est. Unit Cost | Unit Type | Estimated Cost to Replace | Life Expectancy Normal | Life Expectancy Rmng | Source & Condition See Legend | Fully-Funded Allocation in 2020 | Fully-Funded Balance @ FYE2019 | Projected Balance @ FYE | Under Funded | Allocation w\Deficit Reduction |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CONTINGENCY 10%** | | | | | | | | 11,679 | 129,596 | 0 | (129,596) | 13,508 |
| **REPLACEMENT COST** | | | | 1,676,243 | | | | 128,473 | 1,425,556 | 1,124,264 | (301,292) | 148,586 |

**FULLY-FUNDED RESERVE BALANCE**

**1) Trower Estimate 2) Previous Study Info 3) Local Historical Cost 4) Bid on File with HOA**

**5) Manager and Board Direction Condition: G-good, F-fair, P-poor**

**Report Based on Inflation Rate of: 3.0%** **Report Based on Interest Rate on Reserve Savings of: 0.15%**

# Benedict Hills Estates Association

April 22, 2019

**THIRTY YEAR PROJECTED RESERVE EXPENSES STRAIGHT LINE METHOD ***

| CATEGORY<br>Component | 2019<br>Yr 0 | 2020<br>Yr 1 | 2021<br>Yr 2 | 2022<br>Yr 3 | 2023<br>Yr 4 | 2024<br>Yr 5 | 2025<br>Yr 6 | 2026<br>Yr 7 | 2027<br>Yr 8 | 2028<br>Yr 9 | 2029<br>Yr 10 | 2030<br>Yr 11 | 2031<br>Yr 12 | 2032<br>Yr 13 | 2033<br>Yr 14 | 2034<br>Yr 15 | 2035<br>Yr 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CONCRETE** | | | | | | | | | | | | | | | | | |
| Swales 20% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 861,587 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Street Drains 30% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Subtotal** | | | | | | | | | | | | | | | | | |
| **SEWER LINES** | | | | | | | | | | | | | | | | | |
| Pipe Clearing | 0 | 2,099 | 2,162 | 2,227 | 2,294 | 2,363 | 2,433 | 2,506 | 2,582 | 2,659 | 2,739 | 2,821 | 2,906 | 2,993 | 3,083 | 3,175 | 3,270 |
| **Subtotal** | | | | | | | | | | | | | | | | | |
| **LANDSCAPE** | | | | | | | | | | | | | | | | | |
| Improvements | 0 | 82,400 | 84,872 | 87,418 | 90,041 | 92,742 | 95,524 | 98,390 | 101,342 | 104,382 | 107,513 | 110,739 | 114,061 | 117,483 | 121,007 | 124,637 | 128,377 |
| **Subtotal** | | | | | | | | | | | | | | | | | |
| **IRRIGATION** | | | | | | | | | | | | | | | | | |
| Electrical Pedestal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electrical Pedestal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39,143 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllers | 0 | 0 | 0 | 0 | 11,193 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,959 |
| Backflow Valve 2" | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Backflow Valve 2" | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Backflow Valve 2" | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Backflow Valves 2" | 0 | 0 | 0 | 0 | 0 | 0 | 2,165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Backflow Valves 1.5" | 0 | 0 | 1,418 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shut Off Valves | 0 | 0 | 0 | 794 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,133 | 0 |
| Shut Off Valves | 0 | 0 | 0 | 9,533 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13,592 | 0 |
| Automatic Valves | 0 | 0 | 9,071 | 0 | 0 | 0 | 0 | 10,515 | 0 | 0 | 0 | 0 | 12,190 | 0 | 0 | 0 | 0 |
| Replace Lines 45% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,105,418 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Subtotal** | | | | | | | | | | | | | | | | | |
| **CONTINGENCY 10%** | | | | | | | | | | | | | | | | | |
| **REPLACEMENT COST** | 0 | 84,499 | 97,523 | 99,973 | 103,528 | 95,105 | 100,123 | 111,412 | 103,923 | 2,113,189 | 110,252 | 113,560 | 129,157 | 120,476 | 124,090 | 142,537 | 147,606 |
| **FULLY-FUNDED RESERVE BALANCE** | 1,425,556 | 1,511,926 | 1,591,182 | 1,674,332 | 1,760,456 | 1,862,346 | 1,966,492 | 2,066,510 | 2,182,133 | 196,377 | 259,161 | 325,535 | 382,859 | 456,513 | 534,242 | 600,763 | 669,962 |
| **RECOMMENDED BALANCE** | 1,124,264 | 1,165,729 | 1,197,429 | 1,230,575 | 1,264,127 | 1,310,795 | 1,356,601 | 1,395,085 | 1,446,101 | -609,375 | -558,386 | -505,763 | -464,268 | -408,249 | -350,444 | -306,272 | -261,526 |

**Report Based on Inflation Rate of 3.0% and Interest Rate on Reserve Savings of 0.15%**

# Benedict Hills Estates Association

April 22, 2019

**THIRTY YEAR PROJECTED RESERVE EXPENSES STRAIGHT LINE METHOD ***

| CATEGORY<br>Component | 2036<br>Yr 17 | 2037<br>Yr 18 | 2038<br>Yr 19 | 2039<br>Yr 20 | 2040<br>Yr 21 | 2041<br>Yr 22 | 2042<br>Yr 23 | 2043<br>Yr 24 | 2044<br>Yr 25 | 2045<br>Yr 26 | 2046<br>Yr 27 | 2047<br>Yr 28 | 2048<br>Yr 29 | 2049<br>Yr 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CONCRETE** | | | | | | | | | | | | | | |
| Swales 20% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Street Drains 30% | 0 | 0 | 32,131 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Subtotal** | | | | | | | | | | | | | | |
| **SEWER LINES** | | | | | | | | | | | | | | |
| Pipe Clearing | 3,369 | 3,470 | 3,574 | 3,681 | 3,791 | 3,905 | 4,022 | 4,143 | 4,267 | 4,395 | 4,527 | 4,663 | 4,803 | 4,947 |
| **Subtotal** | | | | | | | | | | | | | | |
| **LANDSCAPE** | | | | | | | | | | | | | | |
| Improvements | 132,228 | 136,195 | 140,280 | 144,489 | 148,824 | 153,288 | 157,887 | 162,624 | 167,502 | 172,527 | 177,703 | 183,034 | 188,525 | 194,181 |
| **Subtotal** | | | | | | | | | | | | | | |
| **IRRIGATION** | | | | | | | | | | | | | | |
| Electrical Pedestal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electrical Pedestal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Controllers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22,753 | 0 | 0 |
| Backflow Valve 2" | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,686 | 0 | 0 | 0 | 0 | 0 | 0 |
| Backflow Valve 2" | 0 | 0 | 3,179 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Backflow Valve 2" | 2,997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Backflow Valves 2" | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Backflow Valves 1.5" | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,245 |
| Shut Off Valves | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,615 | 0 | 0 | 0 |
| Shut Off Valves | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19,379 | 0 | 0 | 0 |
| Automatic Valves | 14,132 | 0 | 0 | 0 | 0 | 16,383 | 0 | 0 | 0 | 0 | 18,992 | 0 | 0 | 0 |
| Replace Lines 45% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Subtotal** | | | | | | | | | | | | | | |
| **CONTINGENCY 10%** | | | | | | | | | | | | | | |
| **REPLACEMENT COST** | 152,725 | 139,664 | 179,165 | 148,170 | 152,615 | 173,576 | 161,909 | 170,452 | 171,769 | 176,922 | 222,216 | 210,450 | 193,328 | 202,373 |
| **FULLY-FUNDED RESERVE BALANCE** | 742,046 | 836,378 | 898,625 | 1,002,043 | 1,110,857 | 1,208,097 | 1,327,889 | 1,449,911 | 1,582,045 | 1,720,803 | 1,824,477 | 1,952,176 | 2,110,504 | 2,273,166 |
| **RECOMMENDED BALANCE** | -216,083 | -150,658 | -120,267 | -50,694 | 21,075 | 77,893 | 154,231 | 229,097 | 310,304 | 394,058 | 438,420 | 503,530 | 595,297 | 686,522 |

**Report Based on Inflation Rate of 3.0% and Interest Rate on Reserve Savings of 0.15%**

# RESERVE FUNDING SUMMARY

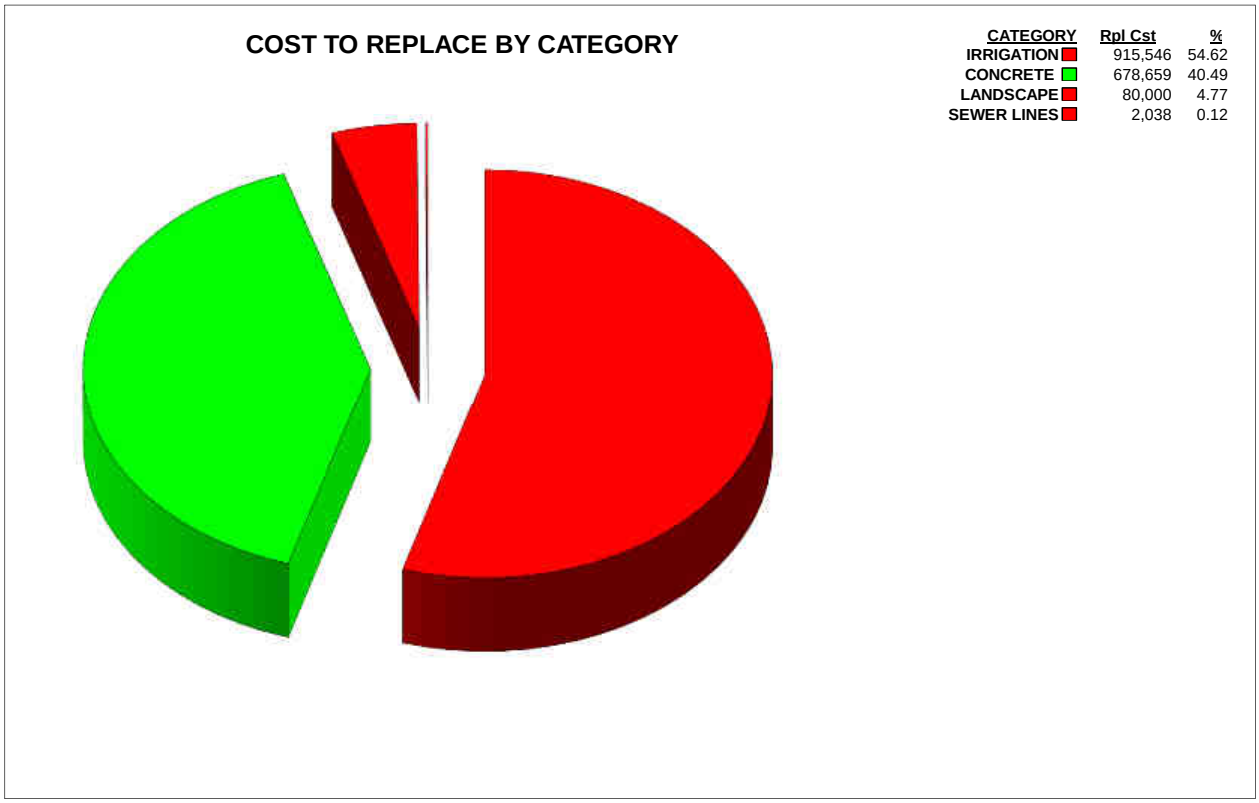
**(Recommend Allocation Model in Dashed Box)**

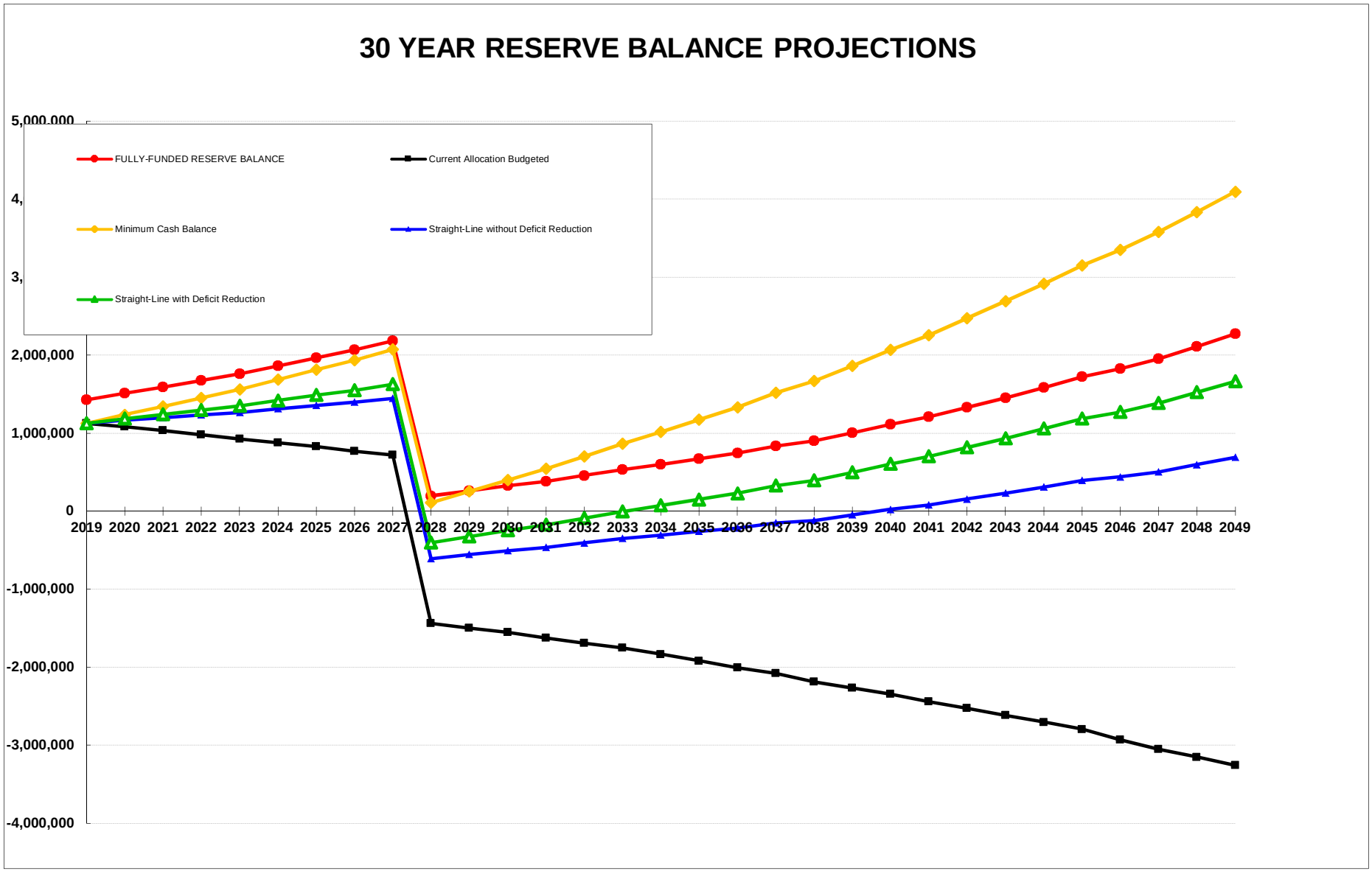
| | Per Year | Per Month | Per Unit Per Month |
|---|---|---|---|
| ALLOCATION BUDGETED IN 2019 | 47,112 | 3,926.00 | 17.14 |
| STRAIGHT-LINE ALLOCATION IN 2020 (WITHOUT DEFICIT REDUCTION) | 128,473 | 10,706.08 | 46.75 |
| STRAIGHT-LINE ALLOCATION IN 2020 (WITH DEFICIT REDUCTION) | 148,586 | 12,382.17 | 54.07 |

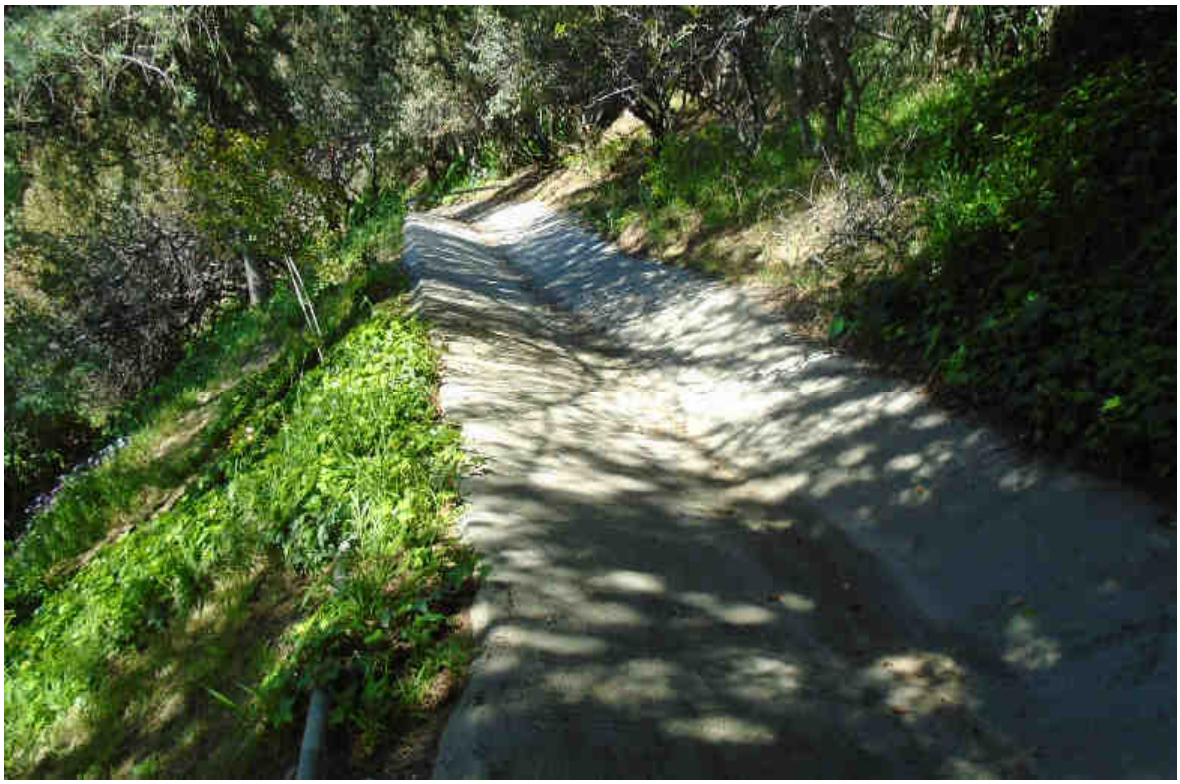
Recommended Annual Allocation plus any underfunded balance divided by the years remaining until replacement of each component (also shown on graph)

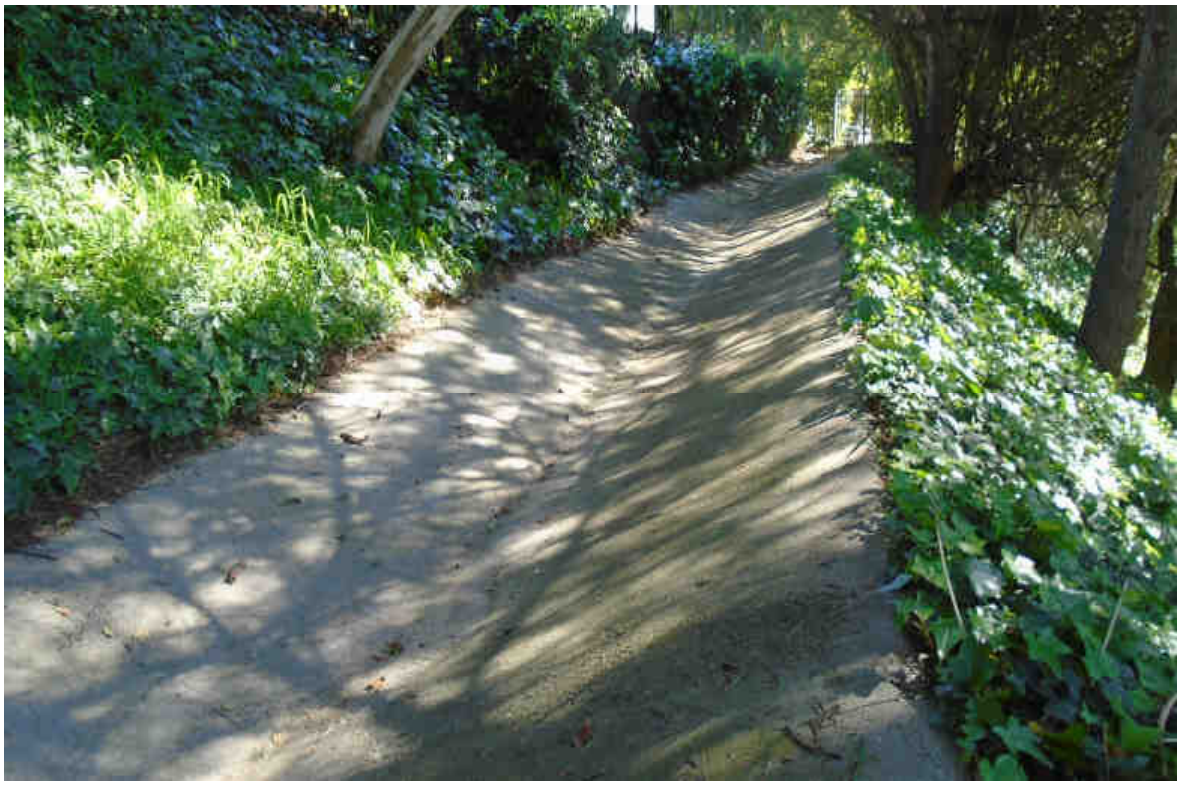
| | | | |
|---|---|---|---|
| MINIMUM CASH BALANCE IN 2020 | 198,765 | 16,563.75 | 72.33 |

**PERCENTAGE OF ACTUAL RESERVES AT FISCAL YEAR END VERSUS FULLY-FUNDED RESERVES AT FISCAL YEAR END: 79%**




30 YEAR RESERVE BALANCE PROJECTIONS
FULLY-FUNDED RESERVE BALANCE
Current Allocation Budgeted
Minimum Cash Balance
Straight-Line without Deficit Reduction
Straight-Line with Deficit Reduction
5,000,000
4,
3,
2,000,000
1,000,000
0
-1,000,000
-2,000,000
-3,000,000
-4,000,000
2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049





**CONCRETE : Swales 20%**

- 10,159 LnFt with a replacement cost of $325 per LnFt.
- Normal life of 50 years with 9 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $660,335.
- **Estimated cost to replace at FYE 2028 is $861,587.**
- Recommended annual allocation in 2020 is $13,207.
- **Recommended annual allocation with deficit reduction in 2020 is $20,750.**
- Recommended balance at fiscal year end is $541,475.
- We allocated $473,581, leaving this component underfunded by $67,894.

**CONCRETE : Street Drains 30%**

- 12 Estimate with a replacement cost of $5,090 per Estimate.
- Normal life of 60 years with 19 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $18,324.
- **Estimated cost to replace at FYE 2038 is $32,131.**
- Recommended annual allocation in 2020 is $305.
- **Recommended annual allocation with deficit reduction in 2020 is $964.**
- Recommended balance at fiscal year end is $12,521.
- We allocated $0, leaving this component underfunded by $12,521.

## SEWER LINES: Pipe Clearing

- 1 Contract with a replacement cost of $2,038 per Contract.
- Normal life of 1 year with 1 year remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $2,038.
- **Estimated cost to replace at FYE 2020 is $2,099.**
- Recommended annual allocation in 2020 is $2,038.
- **Recommended annual allocation with deficit reduction in 2020 is $2,038.**
- Recommended balance at fiscal year end is $0.
- We allocated $0, leaving this component underfunded by $0.

## LANDSCAPE: Improvements

- 1 annual allocations with a replacement cost of $80,000 per year.
- Normal life of 1 year with 1 year remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $80,000.
- **Estimated cost to replace at FYE 2020 is $82,400.**
- Recommended annual allocation in 2020 is $80,000.
- **Recommended annual allocation with deficit reduction in 2020 is $80,000.**
- Recommended balance at fiscal year end is $0.
- We allocated $0, leaving this component underfunded by $0.


Hunter ICC
OFF


WILKINS

**IRRIGATION: Electrical Pedestal**

- 1 Units with a replacement cost of $1,800 per Unit.
- Normal life of 35 years with 35 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $1,800.
- **Estimated cost to replace at FYE 2054 is $5,065.**
- Recommended annual allocation in 2020 is $51.
- **Recommended annual allocation with deficit reduction in 2020 is $51.**
- Recommended balance at fiscal year end is $0.
- We allocated $0, leaving this component underfunded by $0.

**IRRIGATION: Electrical Pedestal**

- 10 Units with a replacement cost of $3,000 per Unit.
- Normal life of 50 years with 9 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $30,000.
- **Estimated cost to replace at FYE 2028 is $39,143.**
- Recommended annual allocation in 2020 is $600.
- **Recommended annual allocation with deficit reduction in 2020 is $943.**
- Recommended balance at fiscal year end is $24,600.
- We allocated $21,515, leaving this component underfunded by $3,085.

**IRRIGATION: Controllers**

- 13 Units with a replacement cost of $765 per Unit.
- Normal life of 12 years with 4 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $9,945.
- **Estimated cost to replace at FYE 2023 is $11,193.**
- Recommended annual allocation in 2020 is $829.
- **Recommended annual allocation with deficit reduction in 2020 is $829.**
- Recommended balance at fiscal year end is $6,630.
- We allocated $6,630, leaving this component underfunded by $0.

**IRRIGATION: Backflow Valve 2"**

- 1 Units with a replacement cost of $1813.15 per Unit.
- Normal life of 25 years with 24 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $1,813.
- **Estimated cost to replace at FYE 2043 is $3,685.**
- Recommended annual allocation in 2020 is $73.
- **Recommended annual allocation with deficit reduction in 2020 is $76.**
- Recommended balance at fiscal year end is $73.
- We allocated $0, leaving this component underfunded by $73.

**IRRIGATION: Backflow Valve 2"**

- 1 Units with a replacement cost of $1813.15 per Unit.
- Normal life of 25 years with 19 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $1,813.
- **Estimated cost to replace at FYE 2038 is $3,179.**
- Recommended annual allocation in 2020 is $73.
- **Recommended annual allocation with deficit reduction in 2020 is $95.**
- Recommended balance at fiscal year end is $435.
- We allocated $0, leaving this component underfunded by $435.

**IRRIGATION: Backflow Valve 2"**

- 1 Units with a replacement cost of $1813.15 per Unit.
- Normal life of 25 years with 17 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $1,813.
- **Estimated cost to replace at FYE 2036 is $2,997.**
- Recommended annual allocation in 2020 is $73.
- **Recommended annual allocation with deficit reduction in 2020 is $107.**
- Recommended balance at fiscal year end is $580.
- We allocated $0, leaving this component underfunded by $580.

**IRRIGATION: Backflow Valves 2"**

- 1 Units with a replacement cost of $1813.15 per Unit.
- Normal life of 32 years with 6 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $1,813.
- **Estimated cost to replace at FYE 2025 is $2,165.**
- Recommended annual allocation in 2020 is $57.
- **Recommended annual allocation with deficit reduction in 2020 is $57.**
- Recommended balance at fiscal year end is $1,473.
- We allocated $1,473, leaving this component underfunded by $0.

**IRRIGATION: Backflow Valves 1.5"**

- 1 Units with a replacement cost of $1,337 per Unit.
- Normal life of 28 years with 2 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $1,337.
- **Estimated cost to replace at FYE 2021 is $1,418.**
- Recommended annual allocation in 2020 is $48.
- **Recommended annual allocation with deficit reduction in 2020 is $48.**
- Recommended balance at fiscal year end is $1,242.
- We allocated $1,242, leaving this component underfunded by $0.

**IRRIGATION: Shut Off Valves**

- 1 Units with a replacement cost of $727 per Unit.
- Normal life of 12 years with 3 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $727.
- **Estimated cost to replace at FYE 2022 is $794.**
- Recommended annual allocation in 2020 is $61.
- **Recommended annual allocation with deficit reduction in 2020 is $61.**
- Recommended balance at fiscal year end is $545.
- We allocated $545, leaving this component underfunded by $0.

**IRRIGATION: Shut Off Valves**

- 12 Units with a replacement cost of $727 per Unit.
- Normal life of 12 years with 3 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $8,724.
- **Estimated cost to replace at FYE 2022 is $9,533.**
- Recommended annual allocation in 2020 is $727.
- **Recommended annual allocation with deficit reduction in 2020 is $727.**
- Recommended balance at fiscal year end is $6,543.
- We allocated $6,543, leaving this component underfunded by $0.

**IRRIGATION: Automatic Valves**

- 25 Units with a replacement cost of $342 per Unit.
- Normal life of 5 years with 2 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $8,550.
- **Estimated cost to replace at FYE 2021 is $9,071.**
- Recommended annual allocation in 2020 is $1,710.
- **Recommended annual allocation with deficit reduction in 2020 is $1,710.**
- Recommended balance at fiscal year end is $5,130.
- We allocated $5,130, leaving this component underfunded by $0.

**IRRIGATION: Replace Lines 45%**

- 35,556 LnFt with a replacement cost of $52.95 per LnFt.
- Normal life of 50 years with 9 years remaining until replacement.
- Estimated cost to replace at Fiscal Year End (FYE) 2019 is $847,211.
- **Estimated cost to replace at FYE 2028 is $1,105,418.**
- Recommended annual allocation in 2020 is $16,944.
- **Recommended annual allocation with deficit reduction in 2020 is $26,623.**
- Recommended balance at fiscal year end is $694,713.
- We allocated $607,605, leaving this component underfunded by $87,108.

# GENERAL INFORMATION

In the production of a reserve study we utilize information from a variety of sources. The most accurate of these sources are the completed contracts or pending contracts that the Association has solicited. The second source of information we utilize is the actual costs for similar work performed for other associations in the same area. When actual or estimated costs are not available or total replacement is not applicable, we develop an allowance for component replacement. These costs are often listed as an annual allowance to be used to repair or replace the items.

Since 1986, **TROWER** has been actively engaged in architecture, general contracting, cost estimating and consulting throughout America. **Our primary objective is to provide management and associations with current and accurate construction cost data for future repair and replacement of the major common area components the association must maintain.**

**Paul Trower** has a professional degree in Architecture and 35 years of construction experience and is a licensed general contractor. We have completed over 10,200 studies as of April 2013. We produce a study that contains estimated quantities, estimated replacement costs, projected life expectancies and budget recommendations to assist the associations.

The construction industry and available materials are ever evolving. We make every effort to correctly represent these changes.

## FACTORS AFFECTING UNIT COSTS

Project type and size will have an impact on cost. Economies of scale may reduce costs. Material and labor costs are calculated per standard construction practice based on US Government specifications. If overtime or holiday pay is anticipated costs should be adjusted. Output or productivity calculations are based upon working an eight-hour day in daylight.

Additional factors affecting costs are time of year, management fees, weather, labor and union restrictions, permits, building code requirements, utility access, skilled labor and building materials availability.

## LIMITATIONS OF THE STUDY

This study attempts to determine the estimated quantity and remaining useful life of the components which are visually inspected and included in this study. This study is not a guarantee, warranty, or a recommendation to purchase.
Estimated remaining useful life is calculated with reasonable consideration for weather conditions. Natural disasters, including seismic activity have not been

addressed in this study. Reserve Funding for earthquake damage and other disasters exceeds the scope of this study. We recommend the Association consider additional insurance to cover unforeseen disasters. We assume the components of the association will receive proper maintenance.

This report is expressly for the use of the client and only for the purpose of establishing reserve funding requirements.

**TROWER** has made a reasonable effort to ensure that quantities in this report are accurate. We do not assume any liability for damages which may result from this study. We are not responsible for conditions this report fails to disclose. The information contained in this study is deemed reliable as of the date of this study, but is not guaranteed. This study does not preclude errors resulting from unforeseen conditions or circumstances, unreliable information or unpredictable cost conditions. **The scope of this report is expressly limited to the components described herein.**

This study is limited to a visual inspection and there has been no destructive testing or inspection of the interior of private units; floors, wall or ceiling cavities; or structural elements requiring testing. It is assumed that the components have been constructed per original construction documents and comply with applicable codes.

This study is not designed to uncover latent or patent defects. Estimates represent replacement of a component with similar materials only.

Local building codes have not been researched to determine whether or not current ordinances will permit the replacement of any component with like material. The estimates do not take into account the abbreviated useful life of a component as a result of defect in its original construction, installation, or design.

**TROWER** is not responsible for any claims, demands, or damages arising out of the discovery of asbestos or other hazardous materials.

The Association, by accepting this study, agrees to release **TROWER** from any claims, demands or damages. The Association, in consideration of **TROWER** performing the reserve study, hereby agrees to indemnify, defend and hold harmless **TROWER** from and against any and all liability, damages, losses, claims, demands, or lawsuits arising out of or relating to this reserve study.

## DEFINITIONS

COMPONENT: Major repair or replacement item

ESTIMATED COMPONENT QUANTITY: (Est. Comp. Qty.) Quantity or volume

ESTIMATED UNIT COST: Quantitative unit cost per unit of measure

ESTIMATED COST TO REPLACE: Current replacement cost of component

LIFE EXPECTANCY NORMAL: Expected Life of component

LIFE EXPECTANCY REMAINING: Normal life minus years in service

SOURCE & CONDITION: Information acquired from:

1. **TROWER** estimate or allowance for total or partial replacement or repair
2. Information from a previous reserve study
3. Contractor bid for similar work in the same cost area
4. Bid supplied by Board of Directors or Property Manager for completed of pending work
5. Information or direction per the Board of Directors or Property Manager

Condition graded from good to poor (G, G-F, F, F-P and P)

RECOMMENDED ALLOCATION FOR CURRENT FISCAL YEAR: Cost to Replace divided by Normal Life

RECOMMENDED BALANCE @ FYE: (Fiscal Year End): Annual Allocation multiplied by age of component

PROJECTED BALANCE @ FYE: The reserve account balance at FYE calculated from most recent financials (distributed by priority of need)

UNDER FUNDED \ OVER FUNDED: Recommended Balance @ FYE minus Expected Balance @ FYE

CONTINGENCY: An allowance for miscellaneous components (**TROWER** uses five percent unless directed otherwise by Board of Directors or Property Manager)

ANNUAL ALLOCATION w/ DEFICIT REDUCTION: Recommended Annual Allocation plus any under funded balance divided by the years remaining until replacement of each component (also shown on graph)

THIRTY YEAR PROJECTED RESERVE EXPENSES: Replacement cost and year in future dollars (adjusted for annual inflation)