# Cannon Bluff Homeowners Association, Inc.

# Woodbridge, VA • November 17, 2022







Reserve Advisors, LLC 735 N. Water Street, Suite 175 Milwaukee, WI 53202

Cannon Bluff Homeowners Association, Inc. Woodbridge, Virginia

Dear Board of Directors of Cannon Bluff Homeowners Association, Inc.:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of Cannon Bluff Homeowners Association, Inc. in Woodbridge, Virginia and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, November 17, 2022.

This *Reserve Study* exceeds the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level II Reserve Study Update."

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Cannon Bluff Homeowners Association, Inc. plan for a successful future.

As part of our long-term thinking and everyday commitment to our clients, we are available to answer any questions you may have regarding this study.

Respectfully submitted on December 19, 2022 by

Reserve Advisors, LLC

Visual Inspection and Report by: Fredd G. Smith Review by: Nicole L. Lowery, RS<sup>1</sup>, PRA<sup>2</sup>, Associate Director of Quality Assurance



<sup>1</sup> RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.

<sup>2</sup> PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at http://www.apra-usa.com.







# Long-term thinking. Everyday commitment.



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# **1.RESERVE STUDY EXECUTIVE SUMMARY**

**Client:** Cannon Bluff Homeowners Association, Inc. (Cannon Bluff) **Location:** Woodbridge, Virginia **Reference:** 171131

**Property Basics:** Cannon Bluff Homeowners Association, Inc. is responsible for the common elements shared by 236 single-family homes. The community was built from 1984 to 1989.

Reserve Components Identified: 10 Reserve Components.

**Inspection Date:** November 17, 2022. We conducted the original inspection on November 30, 2017.

**Funding Goal:** The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes these threshold funding years in 2027 and 2030 due to replacement of wooden bridges and the repaving of the asphalt pavement. In addition, the Reserve Funding Plan recommends 2053 year end accumulated reserves of approximately \$59,900. We judge this amount of accumulated reserves in 2053 necessary to fund the likely repaving of the asphalt pavement after 2053. Future replacement costs beyond the next 30 years for the repaving of the asphalt pavement are likely to more than double the current cost of repaving. These future needs, although beyond the limit of the Cash Flow Analysis of this Reserve Study, are reflected in the amount of accumulated 2053 year end reserves.

**Methodology:** We use the Cash Flow Method to compute the Reserve Funding Plan. This method offsets future variable Reserve Expenditures with existing and future stable levels of reserve funding. Our application of this method also considers:

- Current and future local costs of replacement
- 1.3% anticipated annual rate of return on invested reserves
- 3.0% future Inflation Rate for estimating Future Replacement Costs

**Sources for** *Local* **Costs of Replacement**: Our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.

## Unaudited Cash Status of Reserve Fund:

- \$25,000 as of September 30, 2022
- 2023<sup>1</sup> budgeted Reserve Contributions of \$3,450
- A potential deficit in reserves might occur by 2026 based upon continuation of the most recent annual reserve contribution of \$3,450 and the identified Reserve Expenditures.

**Project Prioritization:** We note anticipated Reserve Expenditures for the next 30 years in the **Reserve Expenditures** tables and include a **Five-Year Outlook** table following the **Reserve Funding Plan** in Section 3. We recommend the Association prioritize the following projects in the next five years based on the conditions identified:

- Replacement of the dock system
- Partial replacement of the site furniture
- Replacement of the concrete boat ramp

<sup>1</sup> The Fiscal Year (FY 2023) for Cannon Bluff begins October 1, 2022 and ends September 30, 2023. For brevity, we refer to the Fiscal Year by its ending year, i.e. Fiscal Year 2022-23 is FY 2023 or simply 2023.

## Page 1.1 - Executive Summary



- Replacement of the timber retaining wall
- Replacement of the wooden bridges

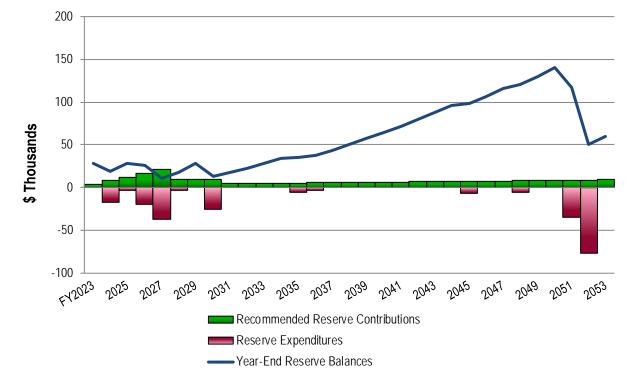
**Recommended Reserve Funding:** We recommend the following in order to achieve a stable and equitable Cash Flow Methodology Funding Plan:

- Phased increases of approximately \$4,400 from 2024 through 2027
- Reduced stable contributions of \$10,000 from 2028 through 2030
- Decrease to \$4,800 by 2031 due to fully funding for replacement of asphalt pavement
- Inflationary increases thereafter through 2052, the limit of this study's Cash Flow Analysis
- Initial adjustment in Reserve Contributions of \$4,450 represents an average annual increase of \$18.86 per homeowner and about a twenty-six percent (26.1%) adjustment in the 2023 total Operating Budget of \$17,052.

|      | Reserve            | Reserve       |      | Reserve            | Reserve       |      | Reserve            | Reserve       |
|------|--------------------|---------------|------|--------------------|---------------|------|--------------------|---------------|
| Year | Contributions (\$) | Balances (\$) | Year | Contributions (\$) | Balances (\$) | Year | Contributions (\$) | Balances (\$) |
| 2024 | 7,900              | 19,229        | 2034 | 5,200              | 33,878        | 2044 | 7,200              | 95,833        |
| 2025 | 12,300             | 28,122        | 2035 | 5,400              | 34,731        | 2045 | 7,400              | 97,777        |
| 2026 | 16,700             | 25,994        | 2036 | 5,600              | 37,124        | 2046 | 7,600              | 106,698       |
| 2027 | 21,100             | 10,752        | 2037 | 5,800              | 43,444        | 2047 | 7,800              | 115,936       |
| 2028 | 10,000             | 18,157        | 2038 | 6,000              | 50,048        | 2048 | 8,000              | 120,438       |
| 2029 | 10,000             | 28,458        | 2039 | 6,200              | 56,939        | 2049 | 8,200              | 130,257       |
| 2030 | 10,000             | 12,786        | 2040 | 6,400              | 64,121        | 2050 | 8,400              | 140,405       |
| 2031 | 4,800              | 17,783        | 2041 | 6,600              | 71,597        | 2051 | 8,700              | 116,445       |
| 2032 | 4,900              | 22,946        | 2042 | 6,800              | 79,372        | 2052 | 9,000              | 49,931        |
| 2033 | 5,000              | 28,277        | 2043 | 7,000              | 87,449        | 2053 | 9,300              | 59,941        |



Recommended Reserve Funding Table and Graph





# 2.RESERVE STUDY REPORT

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of

## Cannon Bluff Homeowners Association, Inc.

## Woodbridge, Virginia

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, November 17, 2022. We conducted the original inspection on November 30, 2017.

We present our findings and recommendations in the following report sections and spreadsheets:

- Identification of Property Segregates all property into several areas of responsibility for repair or replacement
- **Reserve Expenditures** Identifies reserve components and related quantities, useful lives, remaining useful lives and future reserve expenditures during the next 30 years
- Reserve Funding Plan Presents the recommended Reserve Contributions and year-end Reserve Balances for the next 30 years
- **Five-Year Outlook** Identifies reserve components and anticipated reserve expenditures during the first five years
- Reserve Component Detail Describes the reserve components, includes photographic documentation of the condition of various property elements, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Methodology** Lists the national standards, methods and procedures used to develop the Reserve Study
- **Definitions** Contains definitions of terms used in the Reserve Study, consistent with national standards
- **Professional Service Conditions** Describes Assumptions and Professional Service Conditions
- Credentials and Resources



# **IDENTIFICATION OF PROPERTY**



Our investigation includes Reserve Components or property elements as set forth in your Declaration. The Expenditure tables in Section 3 list the elements contained in this study. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement.

Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Homeowners fund certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with the Board. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Homeowners
- Property Maintained by Virginia Department of Transportation

We advise the Board conduct an annual review of these classes of property to confirm its policy concerning the manner of funding, i.e., from reserves or the operating budget. The Reserve Study identifies Reserve Components as set forth in your Declaration or which were identified as part of your request for proposed services. Reserve Components are defined by CAI as property elements with:



- Cannon Bluff responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

Long-Lived Property Elements may not have predictable Remaining Useful Lives or their replacement may occur beyond the 30-year scope of the study. The operating budget should fund infrequent repairs. Funding untimely or unexpected replacements from reserves will necessitate increases to Reserve Contributions. Periodic updates of this Reserve Study will help determine the merits of adjusting the Reserve Funding Plan. We do not identify any Long-Lived Property Elements as excluded from the 30-year Reserve Expenditures at this time.

The operating budget provides money for the repair and replacement of certain Reserve Components. The Association may develop independent criteria for use of operating and reserve funds. For purposes of calculating appropriate Reserve Contributions, we identify the following list of Operating Budget Funded Repairs and Replacements:

- General Maintenance to the Common Elements
- Expenditures less than \$1,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Bridges, Wooden, Staining and Interim Repairs
- Canoe Rack, Interim Repairs
- Gate
- Landscape, General Maintenance
- Paint Finishes, Touch Up
- Walking Trail, Wood Chips, Replenishment
- Other Repairs normally funded through the Operating Budget

Certain items have been designated as the responsibility of the homeowners to repair or replace at their cost. Property Maintained by Homeowners, including items billed back to Homeowners, relates to unit:

Homes and Lots

Certain items have been designated as the responsibility of others to repair or replace. Property Maintained by Virginia Department of Transportation relates to:

• Asphalt Pavement Street Systems



# **3.RESERVE EXPENDITURES and FUNDING PLAN**

The tables following this introduction present:

## **Reserve Expenditures**

- Line item numbers
- Total quantities
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
  - useful life
  - remaining useful life
- 2022 local cost of replacement
  - Per unit
  - Per phase
  - Replacement of total quantity
- Percentage of future expenditures anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

## **Reserve Funding Plan**

- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end
- Predicted reserves based on current funding level

## **Five-Year Outlook**

- Line item numbers
- Reserve component inventory of only the expenditures anticipated to occur within the first five years
- Schedule of estimated future costs for each reserve component anticipated to occur within the first five years

The purpose of a Reserve Study is to provide an opinion of reasonable annual Reserve Contributions. Prediction of exact timing and costs of minor Reserve Expenditures typically will not significantly affect the 30-year cash flow analysis. Adjustments to the times and/or costs of expenditures may not always result in an adjustment in the recommended Reserve Contributions.

Financial statements prepared by your association, by you or others might rely in part on information contained in this section. For your convenience, we have provided an electronic data file containing the tables of **Reserve Expenditures** and **Reserve Funding Plan**.

## **RESERVE EXPENDITURES**

#### Cannon Bluff Homeowners Association, Inc.

#### Explanatory Notes:

1) 3.0% is the estimated Inflation Rate for estimating Future Replacement Costs. 2) FY2023 is Fiscal Year beginning October 1, 2022 and ending September 30, 2023.

|       |          |                |              | Woodbridge, Virginia  | _                       |          |                          |           |                        |        |                             | •      |       | -          | -          |       | -    | •      |      |      |      |      |       |       |      |      |
|-------|----------|----------------|--------------|---|-------------------------|----------|--------------------------|-----------|------------------------|--------|-----------------------------|--------|-------|------------|------------|-------|------|--------|------|------|------|------|-------|-------|------|------|
| Line  | Total    | Per Phase      |              |   | Estimated<br>1st Year o |          | ife Analysis, _<br>rears | Unit      | Costs, \$<br>Per Phase | Total  | Percentage<br>of Future RUL | = 0 1  | 2     | 3          | 4          | 5     | 6    | 7      | 8    | 9    | 10   | 11   | 12    | 13    | 14   | 15   |
| Item  | Quantity | Quantity       | Units        | Reserve Component Inventory                                 | Event                   |          | Remaining                | (2023)    | (2023)                 |        | Expenditures FY2            |        | 2025  | 2026       | 2027       | 2028  | 2029 | 2030   | 2031 | 2032 | 2033 | 2034 | 2035  | 2036  | 2037 | 2038 |
| 4.040 | 1,140    | 0 <b>1,140</b> | Square Yards | s Asphalt Pavement, Access Road, Mill and Overlay           | 2030                    | 20 to 30 | 7                        | 18.50     | 21,090                 | 21,090 | 10.9%                       |        |       |            |            |       |      | 25,938 |      |      |      |      |       |       |      |      |
| 4.081 |          | 1 <b>1</b>     | Each         | Bridge, Wood, Shorter                                       | 2027                    | 20 to 25 | 4                        | 2,500.00  | 2,500                  | 2,500  | 3.7%                        |        |       |            | 2,814      |       |      |        |      |      |      |      |       |       |      |      |
| 4.082 | 3        | 3 <b>3</b>     | Each         | Bridges, Wood, Longer                                       | 2027                    | 20 to 25 | 4                        | 10,000.00 | 30,000                 | 30,000 | 44.0%                       |        |       |            | 33,765     |       |      |        |      |      |      |      |       |       |      |      |
| 4.111 |          | 1 <b>1</b>     | Allowance    | Canoe Rack  | 2036                    | 15 to 20 | 13                       | 2,500.00  | 2,500                  | 2,500  | 1.5%                        |        |       |            |            |       |      |        |      |      |      |      |       | 3,671 |      |      |
| 4.130 |          | 1 <b>1</b>     | Allowance    | Concrete Boat Ramp  | 2024                    | to 35    | 1                        | 11,500.00 | 11,500                 | 11,500 | 5.0%                        | 11,845 | i     |            |            |       |      |        |      |      |      |      |       |       |      |      |
| 4.222 | 300      | 0 <b>300</b> : | Square Feet  | Dock, Floating (Incl. Ramp and Railings)                    | 2026                    | 20 to 25 | 3                        | 50.00     | 15,000                 | 15,000 | 21.4%                       |        |       | 16,391     |            |       |      |        |      |      |      |      |       |       |      |      |
| 4.760 | 80       | 0 <b>80</b> :  | Square Feet  | Retaining Wall, Timber (Replace with Masonry)               | 2024                    | to 25    | 1                        | 72.00     | 5,760                  | 5,760  | 2.5%                        | 5,933  |       |            |            |       |      |        |      |      |      |      |       |       |      |      |
| 4.820 | 2        | 2 1            | Allowance    | Site Furniture, Phased                                      | 2025                    | 15 to 25 | 2 to 12                  | 3,500.00  | 3,500                  | 7,000  | 6.5%                        |        | 3,713 |            |            |       |      |        |      |      |      |      | 4,990 |       |      |      |
| 4.888 |          | 1 <b>1</b>     | Each         | Trash Shelter   | 2028                    | 15 to 20 | 5                        | 2,400.00  | 2,400                  | 2,400  | 3.3%                        |        |       |            |            | 2,782 |      |        |      |      |      |      |       |       |      |      |
| 9.999 |          | 1 <b>1</b>     | Allowance    | Reserve Study Update with Site Visit                        | 2026                    | 3 to 5   | 3                        | 2,550.00  | 2,550                  | 2,550  | 1.2%                        |        |       | 2,786      |            |       |      |        |      |      |      |      |       |       |      |      |
|       |          |                |              | Anticipated Expenditures, By Year (\$237,266 over 30 years) |                         |          |                          |           |                        |        |                             | 17,778 | 3,713 | <br>19,177 | <br>36,579 | 2,782 | 0    | 25,938 | 0    | 0    | 0    | 0    | 4,990 | 3,671 | 0    | 0    |

## **RESERVE EXPENDITURES**

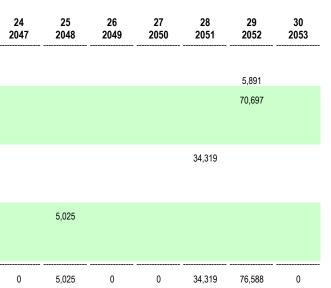
#### Cannon Bluff Homeowners Association, Inc.

Woodbridge, Virginia

| Line<br>Item |       | er Phase<br>Quantity Ur | nits Reserve Component Inventory                       | Estimated<br>1st Year of<br>Event | Y        | fe Analysis,<br>ears<br>Remaining | Unit<br>(2023) | Costs, \$<br>Per Phase<br>(2023) | Total<br>(2023) | _ Percentage<br>of Future<br>Expenditures | 16<br>2039 | 17<br>2040 | 18<br>2041 | 19<br>2042 | 20<br>2043 | 21<br>2044 | 22<br>2045 | 23<br>2046 |  |
|--------------|-------|-------------------------|--|-----------------------------------|----------|-----------------------------------|----------------|----------------------------------|-----------------|---|------------|------------|------------|------------|------------|------------|------------|------------|--|
| 4.040        | 1,140 | 1,140 Square            | Yards Asphalt Pavement, Access Road, Mill and Overlay  | 2030                              | 20 to 30 | 7                                 | 18.50          | 21,090                           | 21,090          | 0 <b>10.9%</b>                            |            |            |            |            |            |            |            |            |  |
| 4.081        | 1     | 1 Each                  | Bridge, Wood, Shorter                                  | 2027                              | 20 to 25 | 4                                 | 2,500.00       | 2,500                            | 2,500           | 0 <b>3.7%</b>                             |            |            |            |            |            |            |            |            |  |
| 4.082        | 3     | 3 Each                  | Bridges, Wood, Longer                                  | 2027                              | 20 to 25 | 4                                 | 10,000.00      | 30,000                           | 30,000          | 0 <b>44.0%</b>                            |            |            |            |            |            |            |            |            |  |
| 4.111        | 1     | 1 Allowa                | nce Canoe Rack   | 2036                              | 15 to 20 | 13                                | 2,500.00       | 2,500                            | 2,500           | 0 <b>1.5%</b>                             |            |            |            |            |            |            |            |            |  |
| 4.130        | 1     | 1 Allowa                | nce Concrete Boat Ramp                                 | 2024                              | to 35    | 1                                 | 11,500.00      | 11,500                           | 11,500          | 0 <b>5.0%</b>                             |            |            |            |            |            |            |            |            |  |
| 4.222        | 300   | 300 Square              | Feet Dock, Floating (Incl. Ramp and Railings)          | 2026                              | 20 to 25 | 3                                 | 50.00          | 15,000                           | 15,000          | 0 <b>21.4%</b>                            |            |            |            |            |            |            |            |            |  |
| 4.760        | 80    | 80 Square               | Feet Retaining Wall, Timber (Replace with Masonry)     | 2024                              | to 25    | 1                                 | 72.00          | 5,760                            | 5,760           | 0 <b>2.5%</b>                             |            |            |            |            |            |            |            |            |  |
| 4.820        | 2     | 1 Allowa                | nce Site Furniture, Phased                             | 2025                              | 15 to 25 | 2 to 12                           | 3,500.00       | 3,500                            | 7,000           | 0 <b>6.5%</b>                             |            |            |            |            |            |            | 6,706      |            |  |
| 4.888        | 1     | 1 Each                  | Trash Shelter  | 2028                              | 15 to 20 | 5                                 | 2,400.00       | 2,400                            | 2,400           | 0 <b>3.3%</b>                             |            |            |            |            |            |            |            |            |  |
|              |       |                         |  |                                   |          |                                   |                |                                  |                 |   |            |            |            |            |            |            |            |            |  |
| 9.999        | 1     | 1 Allowa                | nce Reserve Study Update with Site Visit               | 2026                              | 3 to 5   | 3                                 | 2,550.00       | 2,550                            | 2,550           |   |            |            |            |            |            |            |            |            |  |
|              |       |                         | Anticipated Expenditures, By Year (\$237,266 over 30 v | ears)                             |          |                                   |                |                                  |                 |   | 0          | 0          | 0          | 0          | 0          | 0          | 6.706      | 0          |  |

Anticipated Expenditures, By Year (\$237,266 over 30 years)

0 0 0 0 0 0 6,706 0 0 5,025



# **RESERVE FUNDING PLAN**

| CASH FLOW ANALYSIS<br>Cannon Bluff                 |          |                 |                 |                 |                 |                             |                 |                 |                             |                 |                 |                 |                 |                 |                 |                 |                 |
|--|----------|-----------------|-----------------|-----------------|-----------------|-----------------------------|-----------------|-----------------|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Homeowners Association, Inc.                       |          | <u> </u>        | ndividual Res   | erve Budgets    | & Cash Flow     | s for the Next              | 30 Years        |                 |                             |                 |                 |                 |                 |                 |                 |                 |                 |
| Woodbridge, Virginia                               |          | FY2023          | 2024            | 2025            | 2026            | 2027                        | 2028            | 2029            | 2030                        | 2031            | 2032            | 2033            | 2034            | 2035            | 2036            | 2037            | 2038            |
| Reserves at Beginning of Year                      | (Note 1) | 25,000          | 28,797          | 19,229          | 28,122          | 25,994                      | 10,752          | 18,157          | 28,458                      | 12,786          | 17,783          | 22,946          | 28,277          | 33,878          | 34,731          | 37,124          | 43,444          |
| Total Recommended Reserve Contributions            | (Note 2) | 3,450           | 7,900           | 12,300          | 16,700          | 21,100                      | 10,000          | 10,000          | 10,000                      | 4,800           | 4,900           | 5,000           | 5,200           | 5,400           | 5,600           | 5,800           | 6,000           |
| Estimated Interest Earned, During Year             | (Note 3) | 347             | 310             | 306             | 349             | 237                         | 187             | 301             | 266                         | 197             | 263             | 331             | 401             | 443             | 464             | 520             | 604             |
| Anticipated Expenditures, By Year                  |          | 0               | (17,778)        | (3,713)         | (19,177)        | (36,579)                    | (2,782)         | 0               | (25,938)                    | 0               | 0               | 0               | 0               | (4,990)         | (3,671)         | 0               | 0               |
| Anticipated Reserves at Year End                   |          | <u>\$28,797</u> | <u>\$19,229</u> | <u>\$28,122</u> | <u>\$25,994</u> | <u>\$10,752</u><br>(NOTE 5) | <u>\$18,157</u> | <u>\$28,458</u> | <u>\$12,786</u><br>(NOTE 5) | <u>\$17,783</u> | <u>\$22,946</u> | <u>\$28,277</u> | <u>\$33,878</u> | <u>\$34,731</u> | <u>\$37,124</u> | <u>\$43,444</u> | <u>\$50,048</u> |
| Predicted Reserves based on 2023 funding level of: | \$3,450  | 28,797          | 14,750          | 14,677          | (961)           | (34,318)                    |                 |                 |                             |                 |                 |                 |                 |                 |                 |                 |                 |

| (continued)                             | Individual Res  |                 |                 |                 |                 |                 |                 |                  |                  |                  |                  |                  |                  |                 |                             |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------------------|
|   | 2039            | 2040            | 2041            | 2042            | 2043            | 2044            | 2045            | 2046             | 2047             | 2048             | 2049             | 2050             | 2051             | 2052            | 2053                        |
| Reserves at Beginning of Year           | 50,048          | 56,939          | 64,121          | 71,597          | 79,372          | 87,449          | 95,833          | 97,777           | 106,698          | 115,936          | 120,438          | 130,257          | 140,405          | 116,445         | 49,931                      |
| Total Recommended Reserve Contributions | 6,200           | 6,400           | 6,600           | 6,800           | 7,000           | 7,200           | 7,400           | 7,600            | 7,800            | 8,000            | 8,200            | 8,400            | 8,700            | 9,000           | 9,300                       |
| Estimated Interest Earned, During Year  | 691             | 782             | 876             | 975             | 1,077           | 1,184           | 1,250           | 1,321            | 1,438            | 1,527            | 1,619            | 1,748            | 1,659            | 1,074           | 710                         |
| Anticipated Expenditures, By Year       | 0               | 0               | 0               | 0               | 0               | 0               | (6,706)         | 0                | 0                | (5,025)          | 0                | 0                | (34,319)         | (76,588)        | 0                           |
| Anticipated Reserves at Year End        | <u>\$56,939</u> | <u>\$64,121</u> | <u>\$71,597</u> | <u>\$79,372</u> | <u>\$87,449</u> | <u>\$95,833</u> | <u>\$97,777</u> | <u>\$106,698</u> | <u>\$115,936</u> | <u>\$120,438</u> | <u>\$130,257</u> | <u>\$140,405</u> | <u>\$116,445</u> | <u>\$49,931</u> | <u>\$59,941</u><br>(NOTE 4) |

## Explanatory Notes:

1) Year 2023 starting reserves are as of September 30, 2022; FY2023 starts October 1, 2022 and ends September 30, 2023.

2) Reserve Contributions for 2023 are budgeted; 2024 is the first year of recommended contributions.

3) 1.3% is the estimated annual rate of return on invested reserves.

4) Accumulated year 2052 ending reserves consider the need to fund for subsequent repaving of the asphalt pavement shortly after 2052, and the age, size, overall condition and complexity of the property.

5) Threshold Funding Years (reserve balance at critical point).

# **FIVE-YEAR OUTLOOK**

### Cannon Bluff Homeowners Association Inc

| nomeowners Association, inc. |  |
|------------------------------|--|
| Woodbridge, Virginia         |  |

| Line<br>Item | Reserve Component Inventory                                 | RUL = 0<br>FY2023 | 1<br>2024 | 2<br>2025 | 3<br>2026 | 4<br>2027 | 5<br>2028 |
|--------------|---|-------------------|-----------|-----------|-----------|-----------|-----------|
| 4.081        | Bridge, Wood, Shorter                                       |                   |           |           |           | 2,814     |           |
| 4.082        | Bridges, Wood, Longer                                       |                   |           |           |           | 33,765    |           |
| 4.130        | Concrete Boat Ramp  |                   | 11,845    |           |           |           |           |
| 4.222        | Dock, Floating (Incl. Ramp and Railings)                    |                   |           |           | 16,391    |           |           |
| 4.760        | Retaining Wall, Timber (Replace with Masonry)               |                   | 5,933     |           |           |           |           |
| 4.820        | Site Furniture, Phased                                      |                   |           | 3,713     |           |           |           |
| 4.888        | Trash Shelter   |                   |           |           |           |           | 2,782     |
|              |   |                   |           |           |           |           |           |
| 9.999        | Reserve Study Update with Site Visit                        |                   |           |           | 2,786     |           |           |
|              | Anticipated Expenditures, By Year (\$237,266 over 30 years) | 0                 | 17,778    | 3,713     | 19,177    | 36,579    | 2,782     |



# **4.RESERVE COMPONENT DETAIL**

The Reserve Component Detail of this Reserve Study includes enhanced solutions and procedures for select significant components. This section describes the Reserve Components, documents specific problems and condition assessments, and may include detailed solutions and procedures for necessary capital repairs and replacements for the benefit of current and future board members. We advise the Board use this information to help define the scope and procedures for repair or replacement when soliciting bids or proposals from contractors. However, the Report in whole or part is not and should not be used as a design specification or design engineering service.

## Asphalt Pavement, Access Road, Repaving

## *Line Item:* 4.040

**Quantity:** Approximately 1,140 square yards at the access road that connects Observer lane to the dock and boat ramp

## History: Unknown

*Condition:* Good to fair overall with isolated cracks, raveling, edge deterioration, potholes and previous repairs evident.



Asphalt pavement street overview

Pavement cracks





Pavement cracks with repairs

Edge deterioration



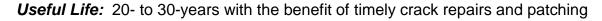
**Pavement pothole formation** 

Raveling



**Pavement pothole formation** 

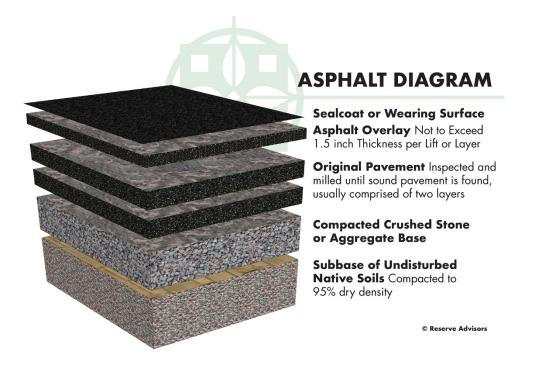
Repairs



**Component Detail Notes:** The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course.



The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish. The following diagram depicts the typical components although it may not reflect the actual configuration at Cannon Bluff:



The manner of repaving is either a mill and overlay or total replacement. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the mill and overlay method of repaving at Cannon Bluff.

*Preventative Maintenance Notes:* We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect for settlement, large cracks and trip hazards, and ensure proper drainage
  - Repair areas which could cause vehicular damage such as potholes
- As needed:
  - Perform crack repairs and patching



*Priority/Criticality:* Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for milling and overlayment includes area patching of up to twenty percent (20%).

## Bridges, Wood

Line Items: 4.081 and 4.082

*Quantity:* The Association maintains four wood bridges located near the common areas. Below is a table with approximate quantities of these bridges.

| Туре    | Approximate Length (Linear Feet) | Approximate Area (Square Feet) | Condition    |
|---------|----------------------------------|--------------------------------|--------------|
| Shorter | 12                               | 48                             | Fair to Poor |
| Longer  | 58                               | 232                            | Fair         |
| Longer  | 40                               | 160                            | Fair         |
| Longer  | 50                               | 200                            | Fair         |

*History:* Installed in 1993. The Association informs us of wood railing replacement on the furthest long bridge from the dock.

**Condition:** Varying from fair to poor (see above chart) overall with wood deterioration, rusted fasteners, loose sections, concrete footing deterioration, wood splits, and repairs evident.



Shorter bridge overview

Longer bridge overview





Shorter bridge wood rot

Shorter bridge wood deterioration



Shorter bridge rusted and loose connection



Longer bridge wood deterioration



Longer bridge concrete footing deterioration

Longer bridge side profile





Longer bridge repaired section

Longer bridge repairs



Longer bridge rust

Longer bridge rusted fasteners



Longer bridge underside profile

Longer bridge wood splits



## Useful Life: 20- to 25-years

*Component Detail Notes:* Proper maintenance should include the following activities funded through the operating budget:

- Annual inspections to identify and correct any unsafe conditions
- Securing of loose fasteners and replacement of deteriorated fasteners
- Replacement of deteriorated wood components
- Power washing with an algaecide

*Priority/Criticality:* Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend relocation of the shorter bridge at the time of replacement due to proximity of trees. This will help prevent premature deterioration due to tree growth.

## Canoe Rack

*Line Item:* 4.111

Quantity: One canoe rack located near the dock

History: Installed in 2016

*Condition:* Good to fair overall with loose boards, wood damage, and splitting evident





Canoe rack

Loose boards





Wood damage

Wood splitting

Useful Life: 15- to 20-years for replacement

Priority/Criticality: Per Board discretion

*Expenditure Detail Notes:* Expenditure timing and costs are depicted in the *Reserve Expenditures* table in Section 3.

## **Concrete Boat Ramp**

*Line Item:* 4.130

Quantity: One concrete boat ramp comprising a total of approximately 250 square feet.

History and Condition: Fair to poor overall with undermining and damage evident



Concrete boat ramp overview

Concrete damage





## Undermining

Useful Life: Up to 35 years for total replacement

*Preventative Maintenance Notes:* We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - o Inspect and repair major cracks, spalls and trip hazards
  - Repair or perform concrete leveling in areas in immediate need of repair or possible safety hazard

Priority/Criticality: Not recommended to defer

*Expenditure Detail Notes:* Expenditure timing and costs are depicted in the *Reserve Expenditures* table in Section 3.

## **Dock, Floating**

Line Item: 4.222

*Quantity:* One floating dock near the boat ramp

*History:* Reportedly installed in early 1990's. The Association replaced three floats/ pontoons under the dock in the past five years

*Condition:* Fair overall with pile displacement, pile damage, rusted fasteners, repairs, and wood deterioration evident.







Dock overview





Wood deterioration



Pile damage



**Replaced boards** 



Rust fastener



Useful Life: 20- to 25-years for replacement

**Component Detail Notes:** These floating dock utilizes encapsulated polystyrene billets (floatation devices) and a composite deck. Metal piles with sleeves stabilize the docks. The docks automatically adjust to fluctuations in water levels. We recommend the Association remove the dock in the winter months to prevent premature deterioration of the dock and pilings and to extend the useful life.

*Priority/Criticality:* Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes an allowance for replacement of the ramp and railings.

## **Retaining Wall, Timber**

Line Item: 4.760

*Quantity:* Approximately 80 square feet of timber retaining wall near the concrete boat ramp

History: Reportedly installed in early 1990's.

Condition: Fair overall with wood rot and wood splitting evident.



Timber retaining wall overview

Wall wood rot

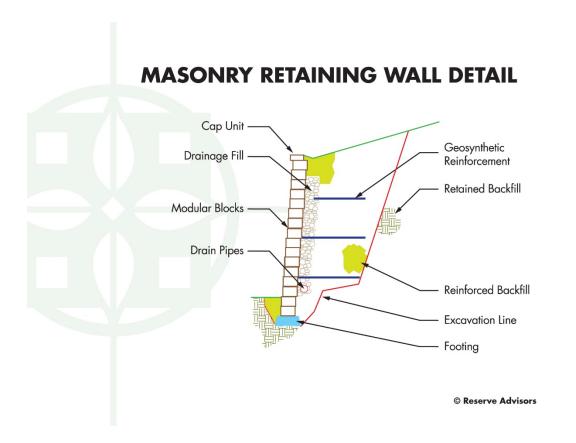




Wall wood splitting

Useful Life: Up to 25 years for timber retaining walls

**Component Detail Notes:** We advise Cannon Bluff replace with a modular, interlocking dry-set masonry retaining wall system. The cost of dry-set masonry retaining walls is similar to the cost of timber walls. However, dry-set masonry retaining walls offer a longer useful life of up to 35 years and lower total maintenance costs. The following schematic depicts the typical components of a retaining wall system although it may not reflect the actual configuration at Cannon Bluff:





*Preventative Maintenance Notes:* We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - o Inspect and repair leaning sections or damaged areas
  - o Inspect and repair erosion at the wall base and backside

Priority/Criticality: Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for replacement of the timber retaining wall in conjunction with concrete boat ramp replacement.

## **Site Furniture**

Line Item: 4.820

*Quantity:* The Association maintains picnic tables, grills and a bench located near the walking trail

- Bench
- Picnic tables
- Grills

History: Unknown

*Condition:* Fair overall with rust and table damage evident





Benches

Site furniture





Picnic tables damage

Rust

Useful Life: 15- to 25-years

Priority/Criticality: Per Board discretion

*Expenditure Detail Notes:* Expenditure timing and costs are depicted in the *Reserve Expenditures* table in Section 3.

## **Trash Shelter**

Line Item: 4.888

Quantity: One wood trash shelter with a metal roof located near the dock

*History:* Installed in 2007. The Association repaired the roof of the trash shelter that was partially torn off from weather.

Condition: Good to fair overall with wood damage, rust, and loose fasteners evident



Trash shelter overview

Wood damage





**Rusted and loose fastener** 

Useful Life: 15- to 20-years

Priority/Criticality: Per Board discretion

*Expenditure Detail Notes:* Expenditure timing and costs are depicted in the *Reserve Expenditures* table in Section 3.

## **Reserve Study Update with Site Visit**

## Line Item: 9.999

**Useful Life:** At the request of the Board, we include a budgetary allowance for updates to this reserve study every three- to five-years.

**Component Detail Notes:** An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

- Deferred or accelerated capital projects based on Board discretion
- Changes in the interest rates on reserve investments
- Changes in the *local* construction inflation rate
- Additions and deletions to the Reserve Component Inventory
- The presence or absence of maintenance programs
- Unusually mild or extreme weather conditions
- Technological advancements

Periodic updates incorporate these variable changes since the last Reserve Study or Update. We recommend the Board budget for an Update to this Reserve Study in two-to three-years. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.



# **5.METHODOLOGY**

Reserves for replacement are the amounts of money required for future expenditures to repair or replace Reserve Components that wear out before the entire facility or project wears out. Reserving funds for future repair or replacement of the Reserve Components is also one of the most reliable ways of protecting the value of the property's infrastructure and marketability.

Cannon Bluff can fund capital repairs and replacements in any combination of the following:

- 1. Increases in the operating budget during years when the shortages occur
- 2. Loans using borrowed capital for major replacement projects
- 3. Level annual reserve assessments annually adjusted upward for inflation to increase reserves to fund the expected major future expenditures
- 4. Special assessments

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of *Level Monthly Reserve Assessments* with relatively minor annual adjustments. The method ensures that Homeowners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

This Reserve Study is in compliance with and exceeds the National standards<sup>1</sup> set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level II Reserve Study Update." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

- The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan
- Local<sup>2</sup> costs of material, equipment and labor
- Current and future costs of replacement for the Reserve Components
- Costs of demolition as part of the cost of replacement
- Local economic conditions and a historical perspective to arrive at our estimate of long-term future inflation for construction costs in Woodbridge, Virginia at an annual inflation rate<sup>3</sup>. Isolated or regional markets of greater

<sup>&</sup>lt;sup>1</sup> Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

<sup>&</sup>lt;sup>2</sup> See Credentials for additional information on our use of published sources of cost data.

<sup>&</sup>lt;sup>3</sup> Derived from Marshall & Swift, historical costs and the Bureau of Labor Statistics.



construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

- The past and current maintenance practices of Cannon Bluff and their effects on remaining useful lives
- Financial information provided by the Association pertaining to the cash status of the reserve fund and budgeted reserve contribution
- The anticipated effects of appreciation of the reserves over time in accord with a return or yield on investment of your cash equivalent assets. (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).
- The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions.



# **6.CREDENTIALS**

### HISTORY AND DEPTH OF SERVICE

**Founded in 1991,** Reserve Advisors is the leading provider of reserve studies, insurance appraisals, developer turnover transition studies, expert witness services, and other engineering consulting services. Clients include community associations, resort properties, hotels, clubs, non-profit organizations, apartment building owners, religious and educational institutions, and office/commercial building owners in 48 states, Canada and throughout the world.

The **architectural engineering consulting firm** was formed to take a leadership role in helping fiduciaries, boards, and property managers manage their property like a business with a long-range master plan known as a Reserve Study.

Reserve Advisors employs the **largest staff of Reserve Specialists** with bachelor's degrees in engineering dedicated to Reserve Study services. Our founders are also founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our founders is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and historical analyses are keys to determining accurate remaining useful life estimates of building components.

**No Conflict of Interest** - As consulting specialists, our **independent opinion** eliminates any real or perceived conflict of interest because we do not conduct or manage capital projects.

## TOTAL STAFF INVOLVEMENT

Several staff members participate in each assignment. The responsible advisor involves the staff through a Team Review, exclusive to Reserve Advisors, and by utilizing the experience of other staff members, each of whom has served hundreds of clients. We conduct Team Reviews, an internal quality assurance review of each assignment, including: the inspection; building component costing; lifing; and technical report phases of the assignment. Due to our extensive experience with building components, we do not have a need to utilize subcontractors.

### OUR GOAL

To help our clients fulfill their fiduciary responsibilities to maintain property in good condition.

## VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

Reserve Advisors has conducted reserve studies for a multitude of different communities and building types. We've analyzed thousands of buildings, from as small as a 3,500-square foot day care center to a 2,600,000-square foot 98-story highrise. We also routinely inspect buildings with various types of mechanical systems such as simple electric heat, to complex systems with air handlers, chillers, boilers, elevators, and life safety and security systems.

We're familiar with all types of building exteriors as well. Our well-versed staff regularly identifies optimal repair and replacement solutions for such building exterior surfaces such as adobe, brick, stone, concrete, stucco, EIFS, wood products, stained glass and aluminum siding, and window wall systems.

### **OLD TO NEW**

Reserve Advisors' experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed into our analysis. We recommend appropriate replacement programs that apply cost effective technologies while maintaining a building's character and appeal.



#### FREDD G. SMITH Engineer, Northeast Region Responsible Advisor

#### CURRENT CLIENT SERVICES

Fredd G. Smith, an Associate Engineer, is an Advisor for Reserve Advisors, LLC. Mr. Smith is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study and Transition Study Reports for apartments, high rises, condominiums, townhomes, and homeowners associations.

The following is a partial list of clients served by Fredd Smith demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.



- Victoria Springs Homeowners Association This Association, built in 1994, is located in Olney, Maryland. Home to 120 total units with 48 townhome style units and 72 single family homes, this community includes playgrounds, gazebos, and scenic viewing decks. This community comprises multiple funding plans that separate the townhome expenditures and the single family home expenditures
- **Springhouse Condominium** This historical building was built in 1960 and was converted to condominiums with 23 units total. This three story building is located in Baltimore City in Maryland. This building is heated by a massive 1,890-MBH boiler. This community also offers a laundry room
- Ellicott Meadows Association Located in Ellicott City, Maryland, this master community association features 164 single family and townhome units stretching over approximately 80 acres. The two sub associations that comprise the master association maintain all the exteriors of the homes. This community has amenities such as a clubhouse with a pool extensive walking paths that connect this massive campus with gazebos and rain gardens for your viewing experience. The Association also maintains their very own waste water treatment plant for the community's use.
- **Chase at Quince Orchard Homeowners Association, Inc.** Built in 2020 in Gaithersburg Maryland. This is community has single family style homes as well as townhome style homes. This community offers amenities such as playgrounds, bocce ball courts, scenic views and walking paths.
- Stone Ridge Homeowners Association, Inc. This community was built from 1984 to 1985 and is located in Columbia Maryland. This community is a townhome style community featuring scenic walking paths and a playground
- **Copper Hill Condominium Corporation** This community was built in 1975 and is located in Baltimore Maryland. This community is a townhome style community featuring a community pool and pool house as well as scenic walking paths, tennis courts, and a playground

#### PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, LLC, Mr. Smith attended George Mason University Volgenau School of Engineering in Fairfax, Virginia where he attained his Bachelor of Science degree in Mechanical Engineering. His rigorous coursework focused on using problem solving to understand mechanical systems and principles. During his undergraduate education, Mr. Smith led a team to design and manufacture an exoskeleton to aid a retired army veteran with muscular dystrophy type II in his everyday life.

#### **EDUCATION**

George Mason University - B.S. Mechanical Engineering



#### ALAN M. EBERT, P.E., PRA, RS Director of Quality Assurance

#### **CURRENT CLIENT SERVICES**

Alan M. Ebert, a Professional Engineer, is the Director of Quality Assurance for Reserve Advisors. Mr. Ebert is responsible for the management, review and quality assurance of reserve studies. In this role, he assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Mr. Ebert has been involved with thousands of Reserve Study assignments. The following is a partial list of clients served by Alan Ebert demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.



#### Brownsville Winter Haven Located in Brownsville, Texas, this unique

homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

- **Rosemont Condominiums** This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.
- **Stillwater Homeowners Association** Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.
- **Birchfield Community Services Association** This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.
- **Oakridge Manor Condominium Association** Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.
- **Memorial Lofts Homeowners Association** This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

### PRIOR RELEVANT EXPERIENCE

Mr. Ebert earned his Bachelor of Science degree in Geological Engineering from the University of Wisconsin-Madison. His relevant course work includes foundations, retaining walls, and slope stability. Before joining Reserve Advisors, Mr. Ebert was an oilfield engineer and tested and evaluated hundreds of oil and gas wells throughout North America.

### EDUCATION

University of Wisconsin-Madison - B.S. Geological Engineering

#### PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Professional Engineering License – Wisconsin, North Carolina, Illinois, Colorado Reserve Specialist (RS) - Community Associations Institute Professional Reserve Analyst (PRA) - Association of Professional Reserve Analysts



#### NICOLE L. LOWERY, PRA, RS Associate Director of Quality Assurance

### **CURRENT CLIENT SERVICES**

Nicole L. Lowery, a Civil Engineer, is an Associate Director of Quality Assurance for Reserve Advisors. Ms. Lowery is responsible for the management, review and quality assurance of reserve studies. In this role, she assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Ms. Lowery has been involved with hundreds of Reserve Study assignments. The following is a partial list of clients served by Nicole Lowery demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.



- Amelia Surf & Racquet Club This oceanfront condominium community comprises 156 units in three mid rise buildings. This Fernandina Beach, Florida development contains amenities such as clay tennis courts, two pools and boardwalks.
- **Ten Museum Park** This boutique, luxury 50-story high rise building in downtown Miami, Florida consists of 200 condominium units. The amenities comprise six pools including resistance and plunge pools, a full-service spa and a state-of-the-art fitness center. The property also contains a multi-level parking garage.
- **3 Chisolm Street Homeowners Association** This historic Charleston, South Carolina community was constructed in 1929 and 1960 and comprises brick and stucco construction with asphalt shingle and modified bitumen roofs. The unique buildings were originally the Murray Vocational School. The buildings were transformed in 2002 to 27 high-end condominiums. The property includes a courtyard and covered parking garage.
- Lakes of Pine Run Condominium Association This condominium community comprises 112 units in 41 buildings of stucco construction with asphalt shingle roofs. Located in Ormond Beach, Florida, it has a domestic water treatment plant and wastewater treatment plant for the residents of the property.
- **Rivertowne on the Wando Homeowners Association** This exclusive river front community is located on the Wando River in Mount Pleasant, South Carolina. This unique Association includes several private docks along the Wando River, a pool and tennis courts for use by its residents.
- **Biltmore Estates Homeowners Association** This private gated community is located in Miramar, Florida, just northwest of Miami, Florida and consists of 128 single family homes. The lake front property maintains a pool, a pool house and private streets.
- Bellavista at Miromar Lakes Condominium Association Located in the residential waterfront resort community of Miromar Lakes Beach & Golf Club in Fort Myers, Florida, this property comprises 60 units in 15 buildings. Amenities include a clubhouse and a pool.

#### PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Ms. Lowery was a project manager with Kipcon in New Brunswick, New Jersey and the Washington, D.C. Metro area for eight years, where she was responsible for preparing reserve studies and transition studies for community associations. Ms. Lowery successfully completed the bachelors program in Civil Engineering from West Virginia University in Morgantown, West Virginia.

#### **EDUCATION**

West Virginia University - B.S. Civil Engineering

### **PROFESSIONAL AFFILIATIONS / DESIGNATIONS**

Reserve Specialist (RS) - Community Associations Institute Professional Reserves Analyst (PRA) - Association of Professional Reserve Analysts



## RESOURCES

Reserve Advisors utilizes numerous resources of national and local data to conduct its Professional Services. A concise list of several of these resources follows:

<u>Association of Construction Inspectors</u>, (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at www.iami.org.

<u>American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.</u>, (ASHRAE) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., devoted to the arts and sciences of heating, ventilation, air conditioning and refrigeration; recognized as the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, found on the web at www.ashrae.org. Reserve Advisors actively participates in its local chapter and holds individual memberships.

<u>Community Associations Institute</u>, (CAI) America's leading advocate for responsible communities noted as the only national organization dedicated to fostering vibrant, responsive, competent community associations. Their mission is to assist community associations in promoting harmony, community, and responsible leadership.

<u>Marshall & Swift / Boeckh</u>, (MS/B) the worldwide provider of building cost data, co-sourcing solutions, and estimating technology for the property and casualty insurance industry found on the web at www.marshallswift.com.

**R.S. Means CostWorks**, North America's leading supplier of construction cost information. As a member of the Construction Market Data Group, Means provides accurate and up-to-date cost information that helps owners, developers, architects, engineers, contractors and others to carefully and precisely project and control the cost of both new building construction and renovation projects found on the web at www.rsmeans.com.

Reserve Advisors' library of numerous periodicals relating to reserve studies, condition analyses, chapter community associations, and historical costs from thousands of capital repair and replacement projects, and product literature from manufacturers of building products and building systems.



## 7. DEFINITIONS

Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 305,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners.

- **Cash Flow Method** A method of calculating Reserve Contributions where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.
- **Component Method** A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.
- **Current Cost of Replacement** That amount required today derived from the quantity of a *Reserve Component* and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current *local* market prices for *materials, labor* and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.
- **Fully Funded Balance** The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation.
- Funding Goal (Threshold) The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.
- Future Cost of Replacement Reserve Expenditure derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.
- **Long-Lived Property Component** Property component of Cannon Bluff responsibility not likely to require capital repair or replacement during the next 30 years with an unpredictable remaining Useful Life beyond the next 30 years.
- **Percent Funded** The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.
- **Remaining Useful Life** The estimated remaining functional or useful time in years of a *Reserve Component* based on its age, condition and maintenance.
- **Reserve Component** Property elements with: 1) Cannon Bluff responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.
- **Reserve Component Inventory** Line Items in **Reserve Expenditures** that identify a *Reserve Component*.
- **Reserve Contribution** An amount of money set aside or *Reserve Assessment* contributed to a *Reserve Fund* for future *Reserve Expenditures* to repair or replace *Reserve Components*.
- Reserve Expenditure Future Cost of Replacement of a Reserve Component.
- Reserve Fund Status The accumulated amount of reserves in dollars at a given point in time, i.e., at year end.
- **Reserve Funding Plan** The portion of the Reserve Study identifying the *Cash Flow Analysis* and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.
- **Reserve Study** A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

**Useful Life** - The anticipated total time in years that a *Reserve Component* is expected to serve its intended function in its present application or installation.



## 8. PROFESSIONAL SERVICE CONDITIONS

**Our Services -** Reserve Advisors, LLC ("RA") performs its services as an independent contractor in accordance with our professional practice standards and its compensation is not contingent upon our conclusions. The purpose of our reserve study is to provide a budget planning tool that identifies the current status of the reserve fund, and an opinion recommending an annual funding plan to create reserves for anticipated future replacement expenditures of the property.

Our inspection and analysis of the subject property is limited to visual observations, is noninvasive and is not meant to nor does it include investigation into statutory, regulatory or code compliance. RA inspects sloped roofs from the ground and inspects flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. The report is based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in the Report. The inspection is made by employees generally familiar with real estate and building construction. Except to the extent readily apparent to RA, RA cannot and shall not opine on the structural integrity of or other physical defects in the property under any circumstances. Without limitation to the foregoing, RA cannot and shall not opine on, nor is RA responsible for, the property's conformity to specific governmental code requirements for fire, building, earthquake, and/or occupancy.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the Report. RA does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials or structural defects that are latent or hidden defects which may or may not be present on or within the property. RA does not make any soil analysis or geological study as part of its services, nor does RA investigate vapor, water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions, and RA assumes no responsibility for any such conditions. The Report contains opinions of estimated replacement costs or deferred maintenance expenses and remaining useful lives, which are neither a guarantee of the actual costs or expenses of replacement or deferred maintenance nor a guarantee of remaining useful lives of any property element.

RA assumes, without independent verification, the accuracy of all data provided to it. You agree to indemnify and hold RA harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon supplied by you or others under your direction, or which may result from any improper use or reliance on the Report by you or third parties under your control or direction. Your obligation for indemnification and reimbursement shall extend to any director, officer, employee, affiliate, or agent of RA. Liability of RA and its employees, affiliates, and agents for errors and omissions, if any, in this work is limited to the amount of its compensation for the work performed in this engagement.

RA assumes, without independent verification, the accuracy of all data provided to it. Except to the extent resulting from RA's willful misconduct in connection with the performance of its obligations under this agreement, you agree to indemnify, defend, and hold RA and its affiliates, officers, managers, employees, agents, successors and assigns (each, an "RA Party") harmless from and against (and promptly reimburse each RA Party for) any and all losses, claims, actions, demands, judgments, orders, damages, expenses or liabilities, including, without limitation, reasonable attorneys' fees, asserted against or to which any RA Party may become subject in connection with this engagement, including, without limitation, as a result of any false, misleading or incomplete information which RA relied upon that was supplied by you or others under your direction, or which may result from any improper use or reliance on the Report by you or third parties under your control or direction. NOTWITHSTANDING ANY OTHER PROVISION HEREIN TO THE CONTRARY, THE AGGREGATE LIABILITY (IF ANY) OF RA WITH RESPECT TO THIS AGREEMENT AND RA'S OBLIGATIONS HEREUNDER IS LIMITED TO THE AMOUNT OF THE FEES ACTUALLY RECEIVED BY RA FROM YOU FOR THE SERVICES AND REPORT PERFORMED BY RA UNDER THIS AGREEMENT, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE. YOUR REMEDIES SET FORTH HEREIN ARE EXCLUSIVE AND ARE YOUR SOLE REMEDIES FOR ANY FAILURE OF RA TO COMPLY WITH ITS OBLIGATIONS HEREUNDER OR OTHERWISE. RA SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, ANY LOST PROFITS AND LOST SAVINGS, LOSS OF USE OR INTERRUPTION OF BUSINESS, HOWEVER CAUSED, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), BREACH OF WARRANTY, STRICT LIABILITY OR OTHERWISE, EVEN IF RA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL RA BE LIABLE FOR THE COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES. RA DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES WHATSOEVER, EXPRESS OR IMPLIED OR OF ANY NATURE, WITH REGARD TO THE SERVICES AND THE REPORT, INCLUDING, WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.



**Report -** RA completes the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations and is deemed complete. RA will consider any additional information made available to RA within 6 months of issuing the Report and issue a revised Report based on such additional information if a timely request for a revised Report is made by you. RA retains the right to withhold a revised Report if payment for services was not tendered in a timely manner. All information received by RA and all files, work papers or documents developed by RA during the course of the engagement shall remain the property of RA and may be used for whatever purpose it sees fit. RA reserves the right to, and you acknowledge and agree that RA may, use any data provided by you in connection with the services, or gathered as a result of providing such services, including issuant any Report, in a de-identified and aggregated form for RA's business purposes.

Your Obligations - You agree to provide us access to the subject property for an on-site visual inspection. You agree to provide RA all available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete the Report. You agree to pay actual attorneys' fees and any other costs incurred to collect on any unpaid balance for RA's services.

Use of Our Report and Your Name - Use of the Report is limited to only the purpose stated herein. You acknowledge that RA is the exclusive owner of all intellectual property rights in and relating to the Report. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and that you will be liable for the consequences of any unauthorized use or distribution of the Report. Use or possession of the Report by any unauthorized third party is prohibited. The Report in whole or in part *is not and cannot be used as a design specification for design engineering purposes or as an appraisal.* You may show the Report in its entirety to the following third parties: members of your organization (including your directors, officers, tenants and prospective purchasers), your accountants, attorneys, financial institutions and property managers who need to review the information contained herein, and any other third party who has a right to inspect the Report under applicable law. Without the written consent of RA, you shall not disclose the Report to any other third party. By engaging our services, you agree that the Report contains intellectual property developed (and owned solely) by RA and agree that you will not reproduce or distribute the Report *to any party that conducts reserve studies without the written consent of RA*.

RA will include (and you hereby agree that RA may include) your name in our client lists. RA reserves the right to use (and you hereby agree that RA may use) property information to obtain estimates of replacement costs, useful life of property elements or otherwise as RA, in its sole discretion, deems appropriate.

**Payment Terms, Due Dates and Interest Charges -** The retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Unless this agreement is earlier terminated by RA in the event you breach or otherwise fail to comply with your obligations under this agreement, RA's obligations under this agreement shall commence on the date you execute and deliver this agreement and terminate on the date that is 6 months from the date of delivery of the Report by RA. Notwithstanding anything herein to the contrary, each provision that by its context and nature should survive the expiration or early termination of this agreement shall so survive, including, without limitation, any provisions with respect to payment, intellectual property rights, limitations of liability and governing law.

**Miscellaneous** – Neither party shall be liable for any failures or delays in performance due to fire, flood, strike or other labor difficulty, act of God, act of any governmental authority, riot, embargo, fuel or energy shortage, pandemic, wrecks or delays in transportation, or due to any other cause beyond such party's reasonable control; provided, however, that you shall not be relieved from your obligations to make any payment(s) to RA as and when due hereunder. In the event of a delay in performance due to any such cause, the time for completion or date of delivery will be extended by a period of time reasonably necessary to overcome the effect of such delay. You may not assign or otherwise transfer this agreement, in whole or in part, without the prior written consent of RA. RA may freely assign or otherwise transfer this agreement, in whole or in part, without your prior consent. This agreement shall be governed by the laws of the State of Wisconsin without regard to any principles of conflicts of law that would apply the laws of another jurisdiction. Any dispute with respect to this agreement shall be exclusively venued in Milwaukee County Circuit Court or in the United States District Court for the Eastern District of Wisconsin. Each party hereto agrees and hereby waives the right to a trial by jury in any action, proceeding or claim brought by or on behalf of the parties hereto with respect to any matter related to this agreement.