Lanvale Forest Homeowners' Association

June 28, 2023 • Leland, NC

FULL RESERVE STUDY

RESERVE™ ADVISORS

Long-term thinking. Everyday commitment.

RESERVE ADVISORS
Long-term thinking. Everyday commitment.

Corporate Office
Reserve Advisors Engineering, PLLC
735 N. Water Street, Suite 175
Milwaukee, WI 53202

Lanvale Forest Homeowners' Association
Leland, North Carolina

Dear Board of Directors of Lanvale Forest Homeowners' Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Lanvale Forest Homeowners' Association in Leland, North Carolina and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, June 28, 2023.

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

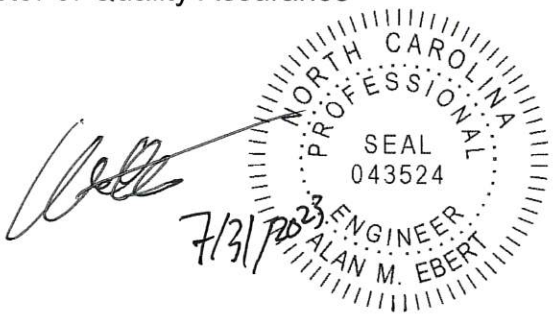
An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Lanvale Forest Homeowners' Association 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 July 31, 2023 by

Reserve Advisors Engineering, PLLC (P-1327)

Visual Inspection and Report by: Dylan Lewis, RS[1]
Alan M. Ebert, P.E. (NC-043524) PRA[2], RS, Director of Quality Assurance



[1] 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.
[2] 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.

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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Lanvale Forest Homeowners' Association (Lanvale Forest)
Location: Leland, North Carolina
Reference: 230581

Property Basics: Lanvale Forest Homeowners' Association is responsible for the common elements shared by 209 single family homes. The community was built in 2006. The community contains a pool house and pool.

Reserve Components Identified: 18 Reserve Components.

Inspection Date: June 28, 2023.

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 this threshold funding year in 2046 due to the replacement of the irrigation system.

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
- 2.0% anticipated annual rate of return on invested reserves
- 3.5% 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:

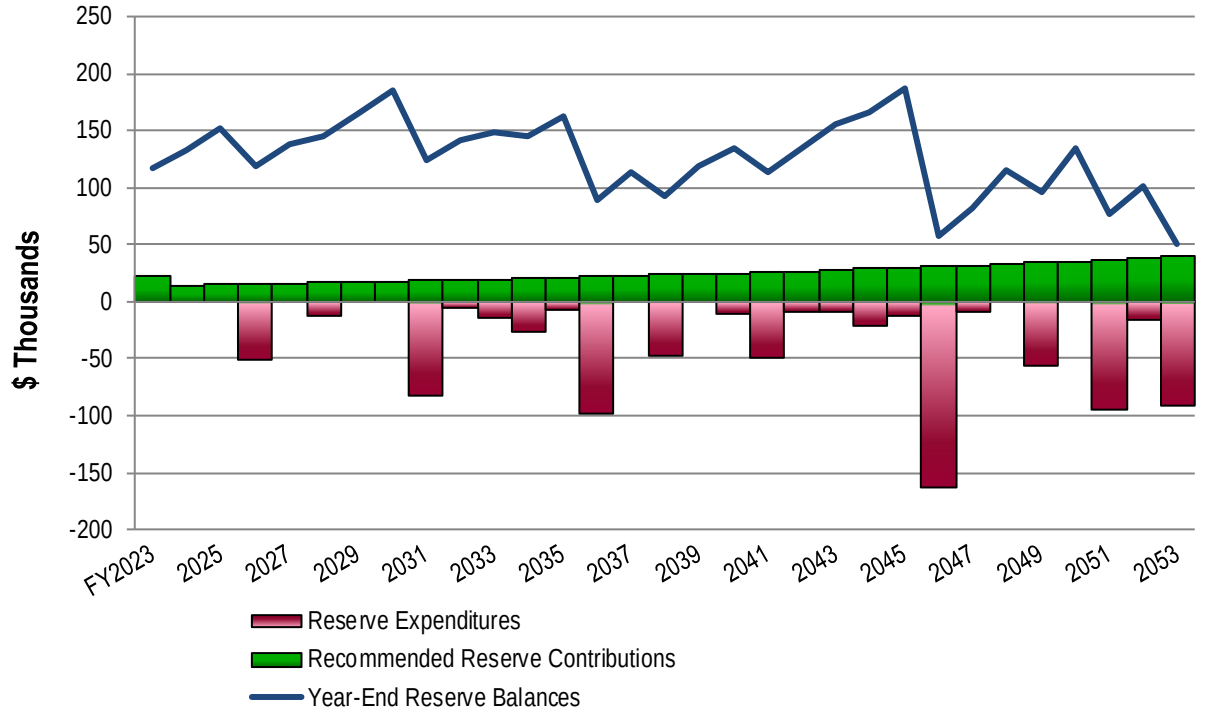
- $92,839 as of May 31, 2023
- 2023 budgeted Reserve Contributions of $38,168

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

- We recommend the Association adopt a reserve budget of $14,500 in 2024
- Inflationary increases thereafter through 2053, the limit of this study's Cash Flow Analysis
- 2024 Reserve Contribution of $14,500 is equivalent to an average monthly contribution of $5.78 per homeowner.

Lanvale Forest Homeowners' Association
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2024	14,500	133,288	2034	20,400	145,316	2044	28,700	165,775
2025	15,000	151,104	2035	21,100	162,665	2045	29,700	186,171
2026	15,500	118,806	2036	21,800	88,486	2046	30,700	57,085
2027	16,000	137,342	2037	22,600	113,082	2047	31,800	81,120
2028	16,600	144,259	2038	23,400	91,599	2048	32,900	115,971
2029	17,200	164,516	2039	24,200	117,873	2049	34,100	96,406
2030	17,800	185,784	2040	25,000	134,605	2050	35,300	133,987
2031	18,400	124,787	2041	25,900	113,309	2051	36,500	77,495
2032	19,000	140,966	2042	26,800	133,906	2052	37,800	100,789
2033	19,700	148,722	2043	27,700	155,518	2053	39,100	50,163



2. RESERVE STUDY REPORT

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

Lanvale Forest Homeowners' Association

Leland, North Carolina

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, June 28, 2023.

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 Management and 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 Others

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:

- Lanvale Forest Homeowners' Association responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

Long-Lived Property Elements – These 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 identify the following Long-Lived Property Elements as excluded from the 30-year Reserve Expenditures at this time:

- Electrical Systems, Common
- Foundations
- Inlet/Outlet Structures, Concrete, Storm Water Management System
- Pipes, Interior Building, Domestic Water, Sanitary Waste, Common
- Pipes, Subsurface Utilities
- Structural Frames

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 $2,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Asphalt Pavement, Crack Repair, Striping and Seal Coat
- Catch Basins, Landscape
- Irrigation System, Controls and Maintenance
- Landscape
- Light Poles and Fixtures, Pool Area
- Paint Finishes, Touch Up
- Signage
- Windows and Doors, Pool House
- Other Repairs normally funded through the Operating Budget

Homeowners' Responsibility - Items 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

Others' Responsibility - Items designated as the responsibility of others to repair or replace. Property Maintained by Others relates to:

- Asphalt Pavement Street Systems (City of Leland)
- Light Poles and Fixtures, Streets (Leased)
- Lift Station (Brunswick Regional)

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
- 2023 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***.

Years 2023 to 2038

RESERVE EXPENDITURES

Lanvale Forest
Homeowners' Association
Leland, North Carolina

Explanatory Notes:
1) **3.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
2) FY2023 is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Unit Cost, $	Percentage Ownership	Costs, $ Per Phase (2023)	Total (2023)	Percentage of Future Expenditures	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038
				Property Site Elements																								
4.040	650	**650**	Square Yards	Asphalt Pavement, Mill and Overlay, Parking Areas	2026	15 to 20	3	25.00	100%	16,250	16,250	**6.1%**				18,017												
4.410	3	**3**	Each	Irrigation System, Pumps	2034	to 20	11	6,100.00	100%	18,300	18,300	**8.1%**												26,717				
4.420	16,000	**16,000**	Square Feet	Irrigation System, Replacement	2046	to 40+	23	2.00	100%	32,000	32,000	**8.0%**																
4.600	3	**3**	Each	Mailbox Stations	2044	to 25	21	3,500.00	100%	10,500	10,500	**2.4%**																
4.700	2	**2**	Each	Ponds, Aerators	2038	10 to 15	15	14,000.00	100%	28,000	28,000	**14.2%**																46,910
4.710	2,120	**320**	Linear Feet	Ponds, Erosion Control, Partial	2036	to 15	13	59.00	100%	18,880	125,080	**8.9%**														29,527		
4.730	9,270	**2,320**	Square Yards	Ponds, Sediment Removal, Partial	2036	to 30	13	19.00	100%	44,080	176,130	**7.8%**														68,939		
4.800	1	**1**	Allowance	Signage, Renovation	2026	15 to 20	3	18,300.00	100%	18,300	18,300	**6.8%**				20,290												
				Pool House Elements																								
5.300	1	**1**	Allowance	Exterior Renovations, Complete	2033	8 to 12	10	4,500.00	100%	4,500	4,500	**3.2%**											6,348					
5.580	2	**2**	Each	Rest Rooms, Renovation	2031	to 25	8	17,000.00	100%	34,000	34,000	**5.0%**									44,772							
5.600	17	**17**	Squares	Roof, Asphalt Shingles	2026	15 to 20	3	410.00	100%	6,970	6,970	**2.6%**				7,728												
5.720	2	**1**	Allowance	Security System, Phased	2026	10 to 15	3 to 9	4,000.00	100%	4,000	8,000	**3.0%**				4,435						5,452						
				Pool Elements																								
6.200	3,070	**3,070**	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2031	8 to 12	8	2.00	100%	6,140	6,140	**4.0%**									8,085							
6.400	220	**220**	Linear Feet	Fence, Aluminum	2031	to 25	8	51.00	100%	11,220	11,220	**1.7%**									14,775							
6.500	2	**1**	Allowance	Furniture, Phased	2028	to 12	5 to 10	6,000.00	100%	6,000	12,000	**6.3%**						7,126					8,464					
6.600	2	**1**	Allowance	Mechanical Equipment, Phased	2028	to 15	5 to 12	4,500.00	100%	4,500	9,000	**3.6%**						5,345							6,800			
6.800	980	**980**	Square Feet	Pool Finish, Plaster	2031	8 to 12	8	11.50	100%	11,270	11,270	**7.4%**									14,840							
6.801	140	**140**	Linear Feet	Pool Finish, Tile	2041	15 to 25	18	38.00	100%	5,320	5,320	**1.1%**																
				Anticipated Expenditures, By Year ($886,680 over 30 years)									0	0	0	50,470	0	12,471	0	0	82,472	5,452	14,812	26,717	6,800	98,466	0	46,910

RESERVE EXPENDITURES

Lanvale Forest
Homeowners' Association
Leland, North Carolina

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Unit Cost, $	Percentage Ownership	Costs, $ Per Phase (2023)	Total (2023)	Percentage of Future Expenditures	16 2039	17 2040	18 2041	19 2042	20 2043	21 2044	22 2045	23 2046	24 2047	25 2048	26 2049	27 2050	28 2051	29 2052	30 2053
				Property Site Elements																							
4.040	650	**650**	Square Yards	Asphalt Pavement, Mill and Overlay, Parking Areas	2026	15 to 20	3	25.00	100%	16,250	16,250	**6.1%**								35,849							
4.410	3	**3**	Each	Irrigation System, Pumps	2034	to 20	11	6,100.00	100%	18,300	18,300	**8.1%**											44,761				
4.420	16,000	**16,000**	Square Feet	Irrigation System, Replacement	2046	to 40+	23	2.00	100%	32,000	32,000	**8.0%**								70,596							
4.600	3	**3**	Each	Mailbox Stations	2044	to 25	21	3,500.00	100%	10,500	10,500	**2.4%**						21,624									
4.700	2	**2**	Each	Ponds, Aerators	2038	10 to 15	15	14,000.00	100%	28,000	28,000	**14.2%**															78,590
4.710	2,120	**320**	Linear Feet	Ponds, Erosion Control, Partial	2036	to 15	13	59.00	100%	18,880	125,080	**8.9%**													49,469		
4.730	9,270	**2,320**	Square Yards	Ponds, Sediment Removal, Partial	2036	to 30	13	19.00	100%	44,080	176,130	**7.8%**															
4.800	1	**1**	Allowance	Signage, Renovation	2026	15 to 20	3	18,300.00	100%	18,300	18,300	**6.8%**								40,372							
				Pool House Elements																							
5.300	1	**1**	Allowance	Exterior Renovations, Complete	2033	8 to 12	10	4,500.00	100%	4,500	4,500	**3.2%**					8,954										12,631
5.580	2	**2**	Each	Rest Rooms, Renovation	2031	to 25	8	17,000.00	100%	34,000	34,000	**5.0%**															
5.600	17	**17**	Squares	Roof, Asphalt Shingles	2026	15 to 20	3	410.00	100%	6,970	6,970	**2.6%**								15,377							
5.720	2	**1**	Allowance	Security System, Phased	2026	10 to 15	3 to 9	4,000.00	100%	4,000	8,000	**3.0%**			7,430						9,133						
				Pool Elements																							
6.200	3,070	**3,070**	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2031	8 to 12	8	2.00	100%	6,140	6,140	**4.0%**			11,405										16,088		
6.400	220	**220**	Linear Feet	Fence, Aluminum	2031	to 25	8	51.00	100%	11,220	11,220	**1.7%**															
6.500	2	**1**	Allowance	Furniture, Phased	2028	to 12	5 to 10	6,000.00	100%	6,000	12,000	**6.3%**		10,768					12,789							16,271	
6.600	2	**1**	Allowance	Mechanical Equipment, Phased	2028	to 15	5 to 12	4,500.00	100%	4,500	9,000	**3.6%**				8,651							11,007				
6.800	980	**980**	Square Feet	Pool Finish, Plaster	2031	8 to 12	8	11.50	100%	11,270	11,270	**7.4%**			20,934										29,529		
6.801	140	**140**	Linear Feet	Pool Finish, Tile	2041	15 to 25	18	38.00	100%	5,320	5,320	**1.1%**			9,882												
				Anticipated Expenditures, By Year ($886,680 over 30 years)									0	10,768	49,651	8,651	8,954	21,624	12,789	162,194	9,133	0	55,768	0	95,086	16,271	91,221

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS
Lanvale Forest
Homeowners' Association
Leland, North Carolina

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Reserves at Beginning of Year	*(Note 1)*	92,839	116,317	133,288	151,104	118,806	137,342	144,259	164,516	185,784	124,787	140,966	148,722	145,316	162,665	88,486	113,082
Total Recommended Reserve Contributions	*(Note 2)*	**22,265**	**14,500**	**15,000**	**15,500**	**16,000**	**16,600**	**17,200**	**17,800**	**18,400**	**19,000**	**19,700**	**20,400**	**21,100**	**21,800**	**22,600**	**23,400**
Estimated Interest Earned, During Year	*(Note 3)*	1,213	2,471	2,816	2,672	2,536	2,788	3,057	3,468	3,075	2,631	2,868	2,911	3,049	2,487	1,996	2,027
Anticipated Expenditures, By Year		0	0	0	(50,470)	0	(12,471)	0	0	(82,472)	(5,452)	(14,812)	(26,717)	(6,800)	(98,466)	0	(46,910)
Anticipated Reserves at Year End		$116,317	$133,288	$151,104	$118,806	$137,342	$144,259	$164,516	$185,784	$124,787	$140,966	$148,722	$145,316	$162,665	$88,486	$113,082	$91,599

(continued)

Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued

	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Reserves at Beginning of Year	91,599	117,873	134,605	113,309	133,906	155,518	165,775	186,171	57,085	81,120	115,971	96,406	133,987	77,495	100,789
Total Recommended Reserve Contributions	**24,200**	**25,000**	**25,900**	**26,800**	**27,700**	**28,700**	**29,700**	**30,700**	**31,800**	**32,900**	**34,100**	**35,300**	**36,500**	**37,800**	**39,100**
Estimated Interest Earned, During Year	2,074	2,500	2,455	2,448	2,866	3,181	3,485	2,408	1,368	1,951	2,103	2,281	2,094	1,765	1,495
Anticipated Expenditures, By Year	0	(10,768)	(49,651)	(8,651)	(8,954)	(21,624)	(12,789)	(162,194)	(9,133)	0	(55,768)	0	(95,086)	(16,271)	(91,221)
Anticipated Reserves at Year End	$117,873	$134,605	$113,309	$133,906	$155,518	$165,775	$186,171	$57,085 *(NOTE 5)*	$81,120	$115,971	$96,406	$133,987	$77,495	$100,789	$50,163 *(NOTE 4)*

Explanatory Notes:

1) Year 2023 starting reserves are as of May 31, 2023; FY2023 starts January 1, 2023 and ends December 31, 2023.
2) Reserve Contributions for 2023 are the remaining budgeted 7 months; 2024 is the first year of recommended contributions.
3) **2.0%** is the estimated annual rate of return on invested reserves; 2023 is a partial year of interest earned.
4) Accumulated year 2053 ending reserves consider the age, size, overall condition and complexity of the property.
5) Threshold Funding Year (reserve balance at critical point).

RESERVE EXPENDITURES

Lanvale Forest
Homeowners' Association
Leland, North Carolina

Line Item	Reserve Component Inventory	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028
	Property Site Elements						
4.040	Asphalt Pavement, Mill and Overlay, Parking Areas				18,017		
4.800	Signage, Renovation				20,290		
	Pool House Elements						
5.600	Roof, Asphalt Shingles				7,728		
5.720	Security System, Phased				4,435		
	Pool Elements						
6.500	Furniture, Phased						7,126
6.600	Mechanical Equipment, Phased						5,345
	Anticipated Expenditures, By Year ($886,680 over 30 years)	0	0	0	50,470	0	12,471

4. RESERVE COMPONENT DETAIL

The Reserve Component Detail of this *Full 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*.

Property Site Elements

Asphalt Pavement, Repaving

Line Item: 4.040

Quantity: Approximately 650 square yards at the parking areas at the parking area

History: Pavement is original. Seal coat and striping event occurred in 2021.

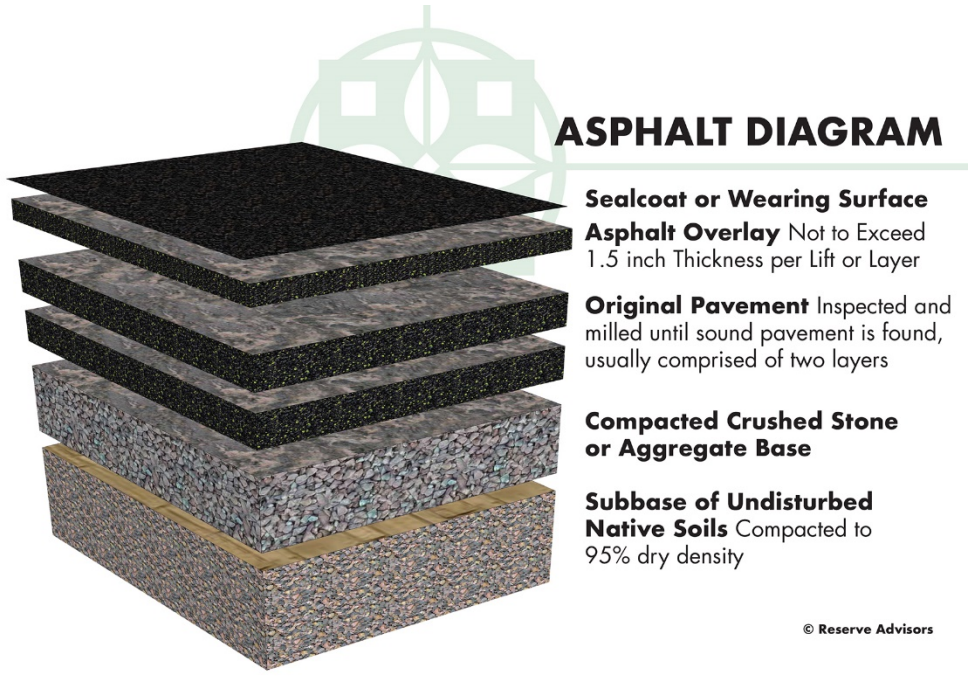
Condition: Good to fair overall with no significant deterioration evident

Asphalt pavement parking lot overview

Asphalt pavement parking lot overview

Useful Life: 15- to 20-years with the benefit of timely crack repairs and patching

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 Lanvale Forest Homeowners' Association:



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 Lanvale Forest Homeowners' Association.

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. We recommend the Association fund interim repairs and maintenance of the asphalt pavement parking area through the operating budget.

Irrigation System, Pumps

Line Item: 4.410

Quantity: Three each

History: Three pumps replaced in 2019.

Condition: Reported satisfactory without operational deficiencies

Useful Life: Up to 20 years

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 estimate of cost includes an allowance for replacement of the variable frequency drives.

Irrigation System, Replacement

Line Item: 4.420

Quantity: Approximately 16,000 square feet

History: Original

Condition: Satisfactory operational condition and Management and the Board do not report any deficiencies

Useful Life: Up to and sometimes beyond 40 years

Component Detail Notes: Irrigation systems typically include the following components:

- Electronic controls (timer)
- Impact rotors
- Network of supply pipes
- Pop-up heads
- Valves

Lanvale Forest Homeowners' Association should anticipate interim and partial replacements of the system network supply pipes and other components as normal maintenance to maximize the useful life of the irrigation system. The Association should fund these ongoing seasonal repairs through the operating budget.

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

- Semi-annually:
    - Conduct seasonal repairs which includes valve repairs, controller repairs, partial head replacements and pipe repairs
    - Blow out irrigation water lines and drain building exterior faucets each fall if applicable

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.

Mailbox Stations

Line Item: 4.600

Quantity: Three stations

History: Replaced in 2019.

Condition: Good overall

Mailbox stations

Useful Life: Up to 25 years

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

- As-needed:
    - Inspect and repair damage, vandalism, and finish deterioration
    - Verify posts are anchored properly

Priority/Criticality: Per Board discretion

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

Ponds, Aerators

Line Item: 4.700

Quantity: Two aerators

History: Installed in 2023.

Condition: Reported satisfactory without operational deficiencies

Pond fountain aerator

Pond aerator

Useful Life: 10- to 15-years

Component Detail Notes: The use of small pumps, motors and aerators circulates pond water and increases the amount of entrained oxygen in the water, increasing water quality and reducing algae growths.

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.

Ponds, Sediment Removal and Erosion Control

Line Items: 4.710 and 4.730

Quantity: Approximately 9,270 square yards of water surface area and approximately 2,120 linear feet of natural sod shorelines

History: Original

Condition: Good to fair overall with minor shoreline erosion, vegetation overgrowth and algae growth evident.

Pond overview

Pond overview

Minor shoreline erosion

Pond overview

Pond overview

Pond overview

Useful Life: Based on the visual condition, construction, adjacent deciduous trees and visibly apparent erosion, we recommend the Association anticipate the need to remove pond sediment up to every 30 years.

Shorelines are subject to fluctuations in water levels, increased plant growth and migrating storm and ground water resulting in the need for erosion control measures up to every 15 years.

Component Detail Notes: The gradual build-up of natural debris, including tree leaves, branches and silt, may eventually change the topography of areas of the pond. Silt typically accumulates at inlets, outlets and areas of shoreline erosion. Sediment removal of ponds becomes necessary if this accumulation alters the quality of pond water or the functionality of the ponds as storm water management structures. Sediment removal is the optimal but also the most capital intensive method of pond management. Excavation equipment used for sediment removal includes clamshells, draglines and suction pipe lines. Sediment removal can also include shoreline regrading. Regrading includes removal of collapsed and eroded soil, and redefining the shoreline.

The steep shoreline embankments are likely to exacerbate soil movement and erosion. The use and maintenance of landscape, natural vegetation and/or stone rip rap along the pond shorelines will help maintain an attractive appearance and prevent soil erosion.

Shoreline plantings are referred to as buffer zones. Buffer zones provide the following advantages:

- Control insects naturally
- Create an aesthetically pleasing shoreline
- Enhance water infiltration and storage
- Filter nutrients and pollutants
- Increase fish and wildlife habitat
- Reduce lawn maintenance
- Stabilize shoreline and reduce erosion
- Trap sediments

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

- Annually:
    - Inspect and remediate shoreline erosion and areas of sediment accumulation
    - Clear and remove debris and vegetation overgrowth at pond edges, and inlet and outlet structures
    - Inspect for algae blooms and remedy as needed through a chemical treatment program or aeration

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 plan to install a

combination of plantings and rip rap around the ponds along 320 linear feet, or approximately fifteen percent (15%), of the shorelines per event.

For reserve budgeting purposes, we estimate the need to remove an average depth of one yard from approximately twenty-five percent (25%) of the surface area. However, the actual volume of material to remove may vary dependent upon an invasive analysis at the time of removal. A visual inspection of a body of water cannot reveal the amount of accumulated silt. This is especially true on larger bodies of water. It is therefore inaccurate to assume an entire body of water will require sediment removal. It is more cost effective to spot remove in areas of intense silt accumulation as noted through bathymetric surveys. The amount or depth of silt is determined through prodding into the silt until a relatively solid base is found or through bathymetric surveys. A bathymetric survey establishes a base of data about the depth of the body of water over many locations against which the data of future surveys is compared. These invasive procedures are beyond the scope of a Reserve Study and require multiple visits to the site. We recommend Lanvale Forest Homeowners' Association contract with a local engineer for periodic bathymetric surveys. Future updates of the Reserve Study can incorporate future anticipated expenditures based on the results of the bathymetric surveys.

Unit costs per cubic yard to remove can vary significantly based on the type of equipment used, quantity of removed material and disposal of removed material. Sediment removal costs must also include mobilization, or getting the equipment to and from the site. Also, the portion of the overall cost to remove associated with mobilization varies based on the volume removed. Costs for sediment disposal also vary depending on the site. Compact sites will require hauling and in some cases disposal fees.

Signage

Line Item: 4.800

Quantity: The property identification signage includes the following elements:

- Landscape
- Light Fixtures
- Fences
- Masonry

History: Original

Condition: Good to fair overall

Entrance monument

Entrance monument

Entrance monument

Useful Life: 15- to 20-years

Component Detail Notes: Community signage contributes to the overall aesthetic appearance of the property to owners and potential buyers. Renovation or replacement of community signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific times for replacement or renovation are discretionary.

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

- Annually:
  - Inspect and repair damage, vandalism and loose components
  - Verify lighting is working properly
  - Touch-up paint finish applications if applicable

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost for renovation includes repairs to the masonry and replacement of the remaining components listed above.

Pool House Elements

Exterior Renovations

Line Item: 5.300

Quantity: The building exterior comprises:

- 1650 square feet of brick siding
- 440 square feet of wood soffit and fascia

History: Varies. The wood soffit and fascia were painted and repaired in 2023.

Condition: Good condition with isolated wood soffit deterioration

Wood soffit and fascia

Wood soffit deterioration

Wood soffit and fascia

Masonry walls overview

Useful Life: 8- to 12-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Complete renovations should include the following:

- Inspection of the brick siding including partial repointing of up to two percent (2%)
- Application of paint finish including partial replacement of up to two percent (2%) of the wood soffit and fascia

Rest Rooms

Line Item: 5.580

Quantity: Two rest rooms at the community pool house. The rest room components include:

- Tile floor coverings
- Tile wall coverings and paint finishes
- Paint finishes at the ceilings
- Light fixtures
- Plumbing fixtures

History: Original

Condition: Good overall with no significant deterioration evident.

Outdoor shower

Tile floor at pool house rest room

Rest room overview

Rest room overview

Rest room overview

Useful Life: Renovation up to every 25 years

Priority/Criticality: Per Board discretion

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

Roof, Asphalt Shingles

Line Item: 5.600

Quantity: Approximately 17 *squares* [1]

History: Original

[1] We quantify the roof area in squares where one square is equal to 100 square feet of surface area.

Condition: Good to fair overall with granular loss and weathering evident from our visual inspection from the ground. Management and the Board do not report a history of leaks.

Roof overview

Roof overview

Useful Life: 15- to 20-years

Component Detail Notes: Contractors use one of two methods for replacement of sloped roofs, either an overlayment or a tear-off. Overlayment is the application of new shingles over an existing roof. However, there are many disadvantages to overlayment including hidden defects of the underlying roof system, absorption of more heat resulting in accelerated deterioration of the new and old shingles, and an uneven visual appearance. Therefore, we recommend only the tear-off method of replacement. The tear-off method of replacement includes removal of the existing shingles, flashings if required and underlayments.

Preventative Maintenance Notes: We recommend the Association maintain a service and inspection contract with a qualified professional and record all documentation of repairs conducted. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
    - Record any areas of water infiltration, flashing deterioration, damage or loose shingles
    - Implement repairs as needed if issues are reoccurring
    - Trim tree branches that are near or in contact with roof
- As-needed:
    - Ensure proper ventilation and verify vents are clear of debris and not blocked from attic insulation

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.

Security System

Line Item: 5.720

Quantity: Lanvale Forest Homeowners' Association utilizes the following security system components:

- Automated proximity reader system (1 access points)
- Cameras (5)

History: Unknown

Condition: Reported satisfactory without operational deficiencies

Security system

Security camera

Useful Life: 10- to 15-years

Preventative Maintenance Notes: We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Monthly:
  - Check cameras for proper focus, fields of view are unobstructed and camera and lenses are clean and dust-free
  - Check recording equipment for proper operation
  - Verify monitors are free from distortion with correct brightness and contrast
- Annually:
  - Check exposed wiring and cables for wear, proper connections and signal transmission
  - Check power connections, and if applicable, functionality of battery power supply systems

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. The Association should anticipate replacement of fifty percent (50%) of the security system components per event.

Pool Elements

Concrete Deck

Line Item: 6.200

Quantity: 3,070 square feet

History: Inspected and repaired in 2021

Condition: Good to fair overall with isolated cracks evident.

Concrete pool deck overview

Isolated cracks evident

Concrete cracks

Useful Life: The useful life of a concrete pool deck is up to 60 years or more with timely repairs. We recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years.

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

- Semi-annually:
    - Inspect and repair large cracks, trip hazards, and possible safety hazards
    - Inspect and repair pool coping for cracks, settlement, heaves or sealant deterioration
    - Repair concrete spalling
    - Schedule periodic pressure cleanings as needed

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 the following per event:

- Selective cut out and replacements of up to ten percent (10%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement

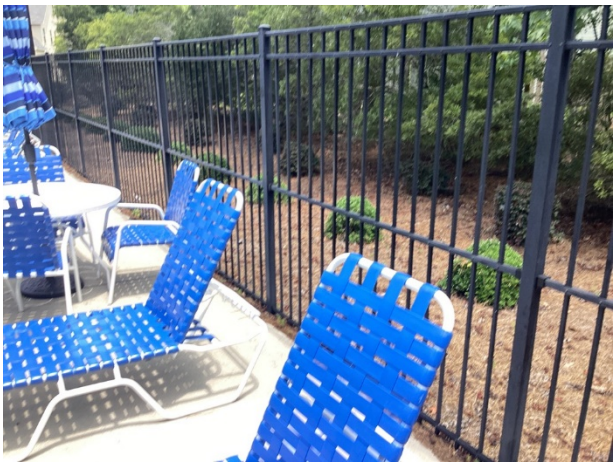
Fence, Aluminum

Line Item: 6.400

Quantity: 220 linear feet

History: Original

Condition: Good to fair overall with isolated finish fade evident.



Aluminum pool fence

Aluminum pool fence

Useful Life: Up to 25 years

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

- Annually:
  - Inspect and repair loose fasteners or sections, and damage
  - Repair leaning sections and clear vegetation from fence areas which could cause damage

Priority/Criticality: Not recommended to defer

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

Furniture

Line Item: 6.500

Quantity: The pool furniture includes the following:

- Chairs
- Lounges
- Tables
- Ladders and life safety equipment

History: Replaced in 2022.

Condition: Good overall

Pool furniture overview

Useful Life: Up to 12 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend interim re-strapping, refinishing, cushion replacements, reupholstering and other repairs to the furniture as normal maintenance to maximize its useful life.

Mechanical Equipment

Line Item: 6.600

Quantity: The mechanical equipment includes the following:

- Automatic chlorinator and controls
- Electrical panel and exhaust fans
- Interconnected pipe, fittings and valves
- Pump and filter

History: Replaced in 2021.

Condition: Reported satisfactory without operational deficiencies

Pool pumps and filters

Automated chlorinator

Electrical panel

Useful Life: Up to 15 years

Preventative Maintenance Notes: We recommend the Association maintain a maintenance contract with a qualified professional and follow the manufacturer's specific recommended maintenance and local, state and/or federal inspection guidelines.

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. Failure of the pool mechanical equipment as a single event is unlikely. Therefore, we include replacement of up to fifty percent (50%) of the equipment per event. We consider interim replacement of motors and minor repairs as normal maintenance.

Pool Finishes, Plaster and Tile

Line Items: 6.800 and 6.801

Quantity: 980 square feet of plaster based on the horizontal surface area and approximately 140 linear feet of tile

History:

- Plaster finish: Refinished in 2021.
- Tile: Repaired in 2021.

Condition: Good overall

Useful Life: 8- to 12-years for the plaster and 15- to 25-years for the tile

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

- Semi-annually:
  - Inspect and patch areas of significant plaster delamination, coping damage and structure cracks
  - Inspect main drain connection and anti-entrapment covers, pressure test circulation piping and valves
  - Test handrails and safety features for proper operation

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 full tile replacement every other plaster replacement event. Removal and replacement of the finish provides the opportunity to inspect the pool structure and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structure, we recommend the Association budget for the following:

- Removal and replacement of the plaster finish
- Partial replacements of the scuppers and coping as needed
- Replacement of tiles as needed
- Replacement of joint sealants as needed
- Concrete structure repairs as needed

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. 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.

Lanvale Forest Homeowners' Association 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 monthly 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[1] set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level I Full Reserve Study." 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[2] 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 Leland, North Carolina at an annual inflation rate[3]. Isolated or regional markets of

[1] Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".
[2] See Credentials for additional information on our use of published sources of cost data.
[3] Derived from Marshall & Swift, historical costs and the Bureau of Labor Statistics.

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

- The past and current maintenance practices of Lanvale Forest Homeowners' Association 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

Reserve Advisors is the leading provider of reserve studies and other engineering consulting services.

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, and routinely inspects 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.

JEFFREY D. LEWIS
Responsible Advisor

CURRENT CLIENT SERVICES

Jeffrey “Dylan” Lewis, a Civil Engineer, is an Associate Engineer for Reserve Advisors. Mr. Lewis is responsible for the inspection and analysis of the condition of clients' properties, 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 Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes and homeowner associations.

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

The Gates at Ansley Homeowners Association, Inc. - This high end planned unit development located in Charlotte, North Carolina is responsible for the common elements shared by 53 single family homes. Construction of the development began in 2007 and contains asphalt pavement streets, ponds, masonry pavers and entrance monument signage.

Yellowtop Mountain Property Owners Association – Settled in the Appalachian Mountains near Bostic, North Carolina, this homeowners association is responsible for the common elements currently shared by 95 single family homes with 269 planned at total buildout. The community infrastructure was built from 2004 to 2009 and contains over ten miles of street networks, storm drainage components and an entry gate with security systems.

Little Oak Island Community Association – Located on a small coastal island next to Folly Beach, South Carolina, this homeowners association was established in 1985 and is responsible for the common elements shared by 68 single family homes. The community contains a pool house, pool, asphalt pavement streets, community docks and timber bulkheads.

Lake Norman Cove at Jetton Owners Association, Inc. - A townhome style development located on the shoreline of Lake Norman near Charlotte, North Carolina, which consists of 171 units in 32 buildings and was constructed from 2004 to 2007. The buildings are comprised of vinyl siding, masonry siding and asphalt shingle roofs with metal roof accents. The community contains a clubhouse, pool, communal docks, and a storm water detention pond.

Aston Condominium Association – Originally built in 1928, this iconic masonry building was converted to condominiums in 2002 and sits in the heart of downtown Asheville, North Carolina. The building includes masonry siding, concrete patios, a rooftop lounge area and an elevator for access to all five floors.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Lewis successfully completed the bachelors program in Civil Engineering at the University of North Carolina at Charlotte with a concentration in land development. In the past, he has worked for multiple engineering companies covering a wide variety of roles and has designed various residential, commercial, and industrial projects across the southeastern United States. Dylan has experience in the design, construction, and management of retention ponds, subsurface utility networks and street systems. He also has experience in the design and implementation of erosion control and storm water management projects.

EDUCATION

University of North Carolina at Charlotte - B.S. in Civil 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

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:

Association of Construction Inspectors, (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.

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., (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.

Community Associations Institute, (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.

Marshall & Swift / Boeckh, (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 Lanvale Forest Homeowners' Association 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) Lanvale Forest Homeowners' Association 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 Engineering, PLLC ("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 subject property. The purpose of our energy benchmarking services is to track, collect and summarize the subject property's energy consumption over time for your use in comparison with other buildings of similar size and establishing a performance baseline for your planning of long-term energy efficiency goals.

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. Our energy benchmarking services with respect to the subject property is limited to collecting energy and utility data and summarizing such data in the form of an Energy Star Portfolio Manager Report or any other similar report, and hereby expressly excludes any recommendations with respect to the results of such energy benchmarking services or the accuracy of the energy information obtained from utility companies and other third-party sources with respect to the subject property. The reserve report and any energy benchmarking report (i.e., any Energy Star Portfolio Manager Report) (including any subsequent revisions thereto pursuant to the terms hereof, collectively, the "Report") are based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in the Engineering 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, occupancy or otherwise.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the Engineering Report. RA does not provide invasive testing on any mechanical systems that provide energy to the property, nor can RA opine on any system components that are not easily accessible during the inspection. 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 Engineering 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. 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 or to whom you provided the Report. 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 will complete the services in accordance with the Proposal. The Engineering Report represents a valid opinion of RA's findings and recommendations with respect to the reserve study and is deemed complete. RA will consider any additional information made available to RA within 6 months of issuing the Engineering Report and issue a revised Engineering Report based on such additional information if a timely request for a revised Engineering Report is made by you. RA retains the right to withhold a revised Engineering 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 in connection with creating and issuing any Engineering 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 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 Engineering Report. Additionally, you agree to provide historical replacement schedules, utility bills and historical energy usage files that RA requests and deems necessary to complete the energy benchmarking services, and you agree to provide any utility release(s) reasonably requested by RA permitting RA to obtain any such data and/or information from any utility representative or other third party. 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 Engineering 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 Engineering Report. You hereby acknowledge that any use or reliance by you on the Engineering 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 Engineering Report. Use or possession of the Engineering Report by any unauthorized third party is prohibited. The Engineering 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 Engineering 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 Engineering Report under applicable law including, but not limited, to any government entity or agency, or any utility companies. Without the written consent of RA, you shall not disclose the Engineering Report to any other third party. By engaging our services, you agree that the Engineering Report contains intellectual property developed (and owned solely) by RA and agree that you will not reproduce or distribute the Engineering 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 - If reserve study and energy benchmarking services are performed by RA, then the retainer payment is due upon execution of this agreement and prior to the inspection by RA, and any balance is due net 30 days from the Engineering Report shipment date. If only energy benchmarking services are performed by RA, then the retainer payment is due upon execution of this agreement and any balance is due net 30 days from the Engineering Report shipment date. In any case, any balance remaining 30 days after delivery of the Engineering 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 Engineering 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.