

The Forest Ridge Association

Dayton, OH • July 29, 2022

FULL RESERVE STUDY



The Forest Ridge Association
Dayton, Ohio

Dear Board of Directors of The Forest Ridge Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of The Forest Ridge Association in Dayton, Ohio and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 29, 2022.

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 The Forest Ridge 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 October 24, 2022 by

Reserve Advisors, LLC

Visual Inspection and Report by: Matthew C. Ferguson, RS¹

Review by: Nicole L. Lowery, RS, PRA², Associate 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: The Forest Ridge Association (The Forest Ridge Association)

Location: Dayton, Ohio

Reference: 220151

Property Basics: The Forest Ridge Association is a homeowners association which is responsible for the common elements shared by 1,123 single family homes. The community was built in 1965. The community contains a pool house and multiple pools.

Reserve Components Identified: 35 Reserve Components.

Inspection Date: July 29, 2022.

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 the following threshold funding years:

- 2025 for replacement of the sport court surfaces
- 2033 for replacement of the remaining pool structures and deck
- 2050 for replacement of the sport court surfaces

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
- 0.7% 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:

- We assume a \$0 starting Reserve Balance as the Board did not provide a financial statement. We recognize the Association likely has reserve funds or funds available for future capital repairs and replacements.
- We assume a \$0 2022 budgeted annual Reserve Contribution as the Board did not provide a 2022 Operating Budget.

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:

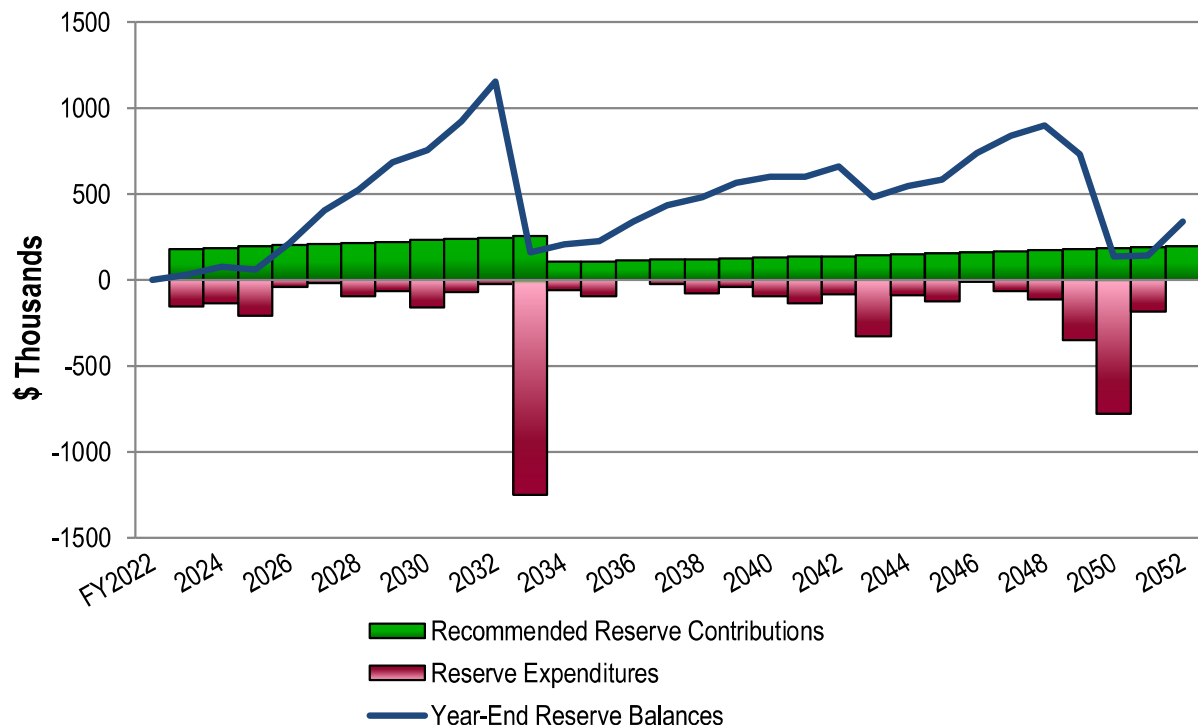
- Replacement of the maintenance sheds due to noted deterioration
- Replacement of the plaster pool finishes and tile
- Replacement of the sport court surface at the pool house
- Systematic preventative maintenance to the concrete to minimize the potential for water infiltration
- Replacement of the Forest Ridge Boulevard playground equipment due to noted deterioration

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

- Increase to \$180,000 in 2023
- Inflationary increases from 2024 through 2033
- Decrease to \$105,000 by 2034 due to fully funding for replacement of pool structure and deck
- Inflationary increases through 2052, the limit of this study's Cash Flow Analysis
- Initial adjustment of \$180,000 is equivalent to an increase of \$13.36 in the monthly contributions per homeowner.
- We were not provided with financial statements as part of our reserve study assessment. Therefore, our funding recommendations are based upon a \$0 reserve balance as of January 1, 2023. We recommend the Association adjust funding levels accordingly based upon any accumulated reserve funds.

The Forest Ridge Association Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2023	180,000	26,482	2033	253,800	161,269	2043	143,100	482,819
2024	186,300	73,923	2034	105,000	209,457	2044	148,100	547,221
2025	192,800	56,915	2035	108,700	223,405	2045	153,300	581,522
2026	199,500	212,826	2036	112,500	337,863	2046	158,700	734,537
2027	206,500	401,122	2037	116,400	432,145	2047	164,300	837,843
2028	213,700	519,772	2038	120,500	479,990	2048	170,100	899,446
2029	221,200	681,220	2039	124,700	563,314	2049	176,100	728,685
2030	228,900	753,618	2040	129,100	598,167	2050	182,300	134,652
2031	236,900	923,465	2041	133,600	599,840	2051	188,700	139,100
2032	245,200	1,154,046	2042	138,300	660,955	2052	195,300	336,057





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

The Forest Ridge Association

Dayton, Ohio

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 29, 2022.

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 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:

- The Forest Ridge Association 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 identify the following Long-Lived Property Elements as excluded from the 30-year Reserve Expenditures at this time.

- Electrical Systems, Pool House (2021)
- Foundation
- Pipes, Interior Building, Domestic Water, Sanitary Waste, Vent, Pool House
- Pool Structure and Deck, Competition Pool (2021)
- Structural Frames



Recently updated electrical system

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 \$4,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Catch Basins, Landscape
- Concrete, Apron, Pool House
- Doors, Pool House (we assume replacement as needed in lieu of an aggregate replacement of the doors)
- Gates, Willow Branch Drive Parking Area
- Landscape

- Light Fixtures, Pool House
- Paint Finishes, Touch Up
- Site Furniture (we assume replacement as needed in lieu of an aggregate replacement of the furniture)
- Soccer Goals
- Speaker System, Pool
- Storage Sheds
- Tennis Courts, Standards
- Water Heaters, Domestic Hot Water, Pool House
- Other Repairs normally funded through the Operating Budget



Water Heater



Storage shed



Steel gate at Willow Branch Drive



Pool house overview

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:

- Curbs and Gutters, Along Streets at Lots
- Homes and Lots
- Sidewalks, Along Streets at Lots



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

- Asphalt Pavement (Municipality)
- Lift Station (Municipality)
- Light Poles and Fixtures, Along Streets (Municipality)

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

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

The Forest Ridge Association
Dayton, Ohio

Explanatory Notes:
1) 3.5% is the estimated inflation rate for estimating future replacement costs.
2) FY2022 is Fiscal Year beginning January 1, 2022 and ending December 31, 2022.

Line Item	Total Quantity	Per Phase Quantity	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit (2022)	Costs, \$		Percentage of Future Expenditures FY2022	RUL = 0															
					Useful	Remaining		(2022)	(2022)		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Property Site Elements																										
4,020	2,700	2,700	Square Yards	Asphalt Pavement, Crack Repair, Patch, Seal Coat, and Stripping	2023	3 to 5	1	1,50	5,130	5,130	1.0%	5,310			6,093											8,023
4,040	2,700	2,700	Square Yards	Asphalt Pavement, Mill and Overlay, Parking Areas	2030	15 to 20	8	15,50	41,850	41,850	1.1%							55,108								
4,045	2,700	2,700	Square Yards	Asphalt Pavement, Total Replacement, Parking Areas	2050	15 to 20	28	33,00	89,100	89,100	4.8%															
4,100	3	1	Each	Bridges, Wood, Replacement, Phased	2028	15 to 25	6 to 12	8,500,000	8,500	25,500	0.7%							10,449		11,565						12,844
4,110	6,800	530	Linear Feet	Concrete Curb and Gutters, Partial	2028	to 65	6 to 30+	47,500	25,175	313,500	4.6%							30,947			36,755					
4,140	26,000	1,735	Square Feet	Concrete Sidewalks, Partial	2024	to 65	2 to 30+	11,500	19,953	299,000	4.2%	21,374						25,365				30,150				15,111
4,200	1	1	Allowance	Culvert, Inspections and Capital Repairs	2024	10 to 15	2	10,000,000	10,000	10,000	1.0%	10,712														
4,360	1	1	Each	Gazebo	2042	to 25	20	11,000,000	11,000	11,000	0.4%															
4,460	1	1	Allowance	Maintenance Sheds, Replacement	2024	to 25	2	75,000,000	75,000	75,000	5.5%	80,342														
4,650	1	1	Allowance	Pipes, Subsurface Utilities, Partial	2030	to 85+	8	7,500,000	7,500	7,500	0.9%								9,876							
4,680	1	1	Allowance	Playground Equipment, Forest Ridge Boulevard	2023	15 to 20	1	15,000,000	15,000	15,000	0.9%		15,525													
4,681	1	1	Allowance	Playground Equipment, Little Jeep Park	2042	15 to 20	20	30,000,000	30,000	30,000	1.2%															
4,682	1	1	Allowance	Playground Equipment, Meadowsweet Drive	2027	15 to 20	5	12,000,000	12,000	12,000	0.9%															
4,683	2	1	Allowance	Playground Equipment, Pool House, Phased	2031	15 to 20	9 to 19	41,000,000	41,000	82,000	5.0%								55,879							
4,684	1	1	Allowance	Playground Equipment, Willow Branch Drive	2030	15 to 20	8	15,000,000	15,000	15,000	1.2%								19,752							
4,800	1	1	Allowance	Springs, Entrance Monuments, Renovation	2023	15 to 20	1	8,800,000	8,800	8,800	0.6%	9,108														
4,830	1,800	1,800	Square Yards	Sport Courts, Odor Coat, Pool House	2030	4 to 6	8	11,000	19,800	19,800	2.8%								26,073							30,966
4,831	1,920	1,920	Square Yards	Sport Courts, Odor Coat, Willow Branch Drive	2030	4 to 6	8	11,000	21,120	21,120	3.0%								27,811							33,031
4,840	440	440	Linear Feet	Sport Courts, Fence, Pool House	2030	to 25	8	39,500	17,380	17,380	0.5%								22,886							
4,841	590	590	Linear Feet	Sport Courts, Fence, Willow Branch Drive	2026	to 25	4	39,500	23,305	23,305	1.8%															
4,860	1,800	1,800	Square Yards	Sport Courts, Surface Replacement, Pool House	2025	to 25	3	47,000	84,600	84,600	6.4%			93,798												
4,861	1,920	1,920	Square Yards	Sport Courts, Surface Replacement, Willow Branch Drive	2025	to 25	3	47,000	90,240	90,240	6.9%			100,051												
Pool House Elements																										
5,580	1	1	Allowance	Rest Room, Renovation	2024	to 25	2	25,000,000	25,000	25,000	1.8%		26,781													
5,600	30	30	Squares	Roof Assembly, Asphalt Shingles	2028	15 to 20	6	470,000	14,100	14,100	1.1%							17,333								
5,720	1	1	Allowance	Security System	2028	10 to 15	6	6,000,000	6,000	6,000	0.4%							7,376								
5,820	2,100	2,100	Square Feet	Walls, Masonry, Inspections and Repairs	2028	to 10	6	3,600	7,560	7,560	0.8%							9,293								
Pool Elements																										
6,200	2,680	2,680	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Competition Pool	2031	8 to 12	9	1,500	3,960	3,960	0.5%								5,438							
6,201	11,410	11,410	Square Feet	Concrete Decks, Inspections, Partial Replacements and Repairs, Remaining	2023	8 to 12	1	1,500	17,115	17,115	1.1%	17,714														
6,400	930	930	Linear Feet	Fence, Chain Link	2028	to 25	6	20,000	18,600	18,600	0.5%							22,864								
6,500	4	1	Allowance	Furniture, Phased	2023	to 12	1 to 10	11,000,000	11,000	44,000	3.9%	11,385						13,995		15,517						17,204
6,600	4	1	Allowance	Mechanical Equipment, Phased	2026	to 15	4 to 13	4,500,000	4,500	18,000	1.3%															
6,800	4,220	4,220	Square Feet	Pool Finishes, Paint, Baby and Competition Pool	2025	3 to 5	3	3,500	14,805	14,805	3.7%															
6,801	3,810	3,810	Square Feet	Pool Finishes, Plaster "L" Pool	2023	8 to 12	1	20,000	76,200	76,200	4.8%	78,867														
6,802	410	410	Linear Feet	Pool Finishes, Tile "L" Pool	2023	15 to 25	1	37,000	15,170	15,170	0.3%	15,701														
6,900	4,300	4,300	Square Feet	Structures and Decks, Total Replacement ("L" Pool and Baby Pool)	2033	to 60	11	190,000	817,000	817,000	24.4%															1,192,795
Anticipated Expenditures, By Year (\$4,897,453 over 30 years)											0	153,610	139,239	210,264	44,530	20,345	96,262	63,941	167,506	72,902	21,865	125,165	58,105	96,262	0	24,804

RESERVE EXPENDITURES

The Forest Ridge Association
Dayton, Ohio

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated Event	Life Analysis, Years		Costs, \$		Percentage of Future Expenditures	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
						Useful	Remaining	Unit (2022)	Total Per Phase (2022)																	
Property Site Elements																										
4,020	2,700	2,700	Square Yards	Asphalt Pavement, Crack Repair, Patch, Seal Coat, and Striping	2023	3 to 5	1	1.60	5,130	5,130	1.0%		9,207			10,565				12,123						
4,040	2,700	2,700	Square Yards	Asphalt Pavement, Mill and Overlay, Parking Areas	2030	15 to 20	8	15.50	41,850	41,850	1.1%															
4,045	2,700	2,700	Square Yards	Asphalt Pavement, Total Replacement, Parking Areas	2050	15 to 20	28	33.00	89,100	89,100	4.8%													233,457		
4,100	3	1	Each	Bridges, Wood, Replacement, Phased	2028	15 to 25	6 to 12	8,500.00	8,500	25,500	0.7%															
4,110	6,800	530	Linear Feet	Concrete Curb and Gutters, Partial	2028	to 65	6 to 30+	47.50	25,175	313,500	4.8%	43,653				51,846				61,577						
4,140	26,000	1,735	Square Feet	Concrete Sidewalks, Partial	2024	to 65	2 to 30+	11.50	19,953	299,000	4.2%		35,808				42,529				50,511					
4,200	1	1	Allowance	Culvert, Inspections and Capital Repairs	2024	10 to 15	2	10,000.00	10,000	10,000	1.0%					21,315										
4,360	1	1	Each	Gazebos	2042	to 25	20	11,000.00	11,000	11,000	0.4%				21,888											
4,460	1	1	Allowance	Maintenance Sheds, Replacement	2024	to 25	2	75,000.00	75,000	75,000	5.5%															
4,550	1	1	Allowance	Pipes, Subsurface Utilities, Partial	2030	to 85+	8	7,500.00	7,500	7,500	0.9%		13,931										189,889		19,651	
4,660	1	1	Allowance	Playground Equipment, Forest Ridge Boulevard	2023	15 to 20	1	15,000.00	15,000	15,000	0.9%					30,891										
4,681	1	1	Allowance	Playground Equipment, Little Jeep Park	2042	15 to 20	20	30,000.00	30,000	30,000	1.2%				59,694											
4,682	1	1	Allowance	Playground Equipment, Meadowsweet Drive	2027	15 to 20	5	12,000.00	12,000	12,000	0.9%									28,359						
4,683	2	1	Allowance	Playground Equipment, Pool House, Phased	2031	15 to 20	9 to 19	41,000.00	41,000	82,000	5.0%				78,823								111,187			
4,684	1	1	Allowance	Playground Equipment, Willow Branch Drive	2030	15 to 20	8	15,000.00	15,000	15,000	1.2%												39,303			
4,800	1	1	Allowance	Springs, Entrance Monuments, Renovation	2023	15 to 20	1	8,800.00	8,800	8,800	0.6%					18,123										
4,830	1,800	1,800	Square Yards	Sport Courts, Odor Coat, Pool House	2030	4 to 6	8	11.00	19,800	19,800	2.8%		36,778				43,681									
4,831	1,920	1,920	Square Yards	Sport Courts, Odor Coat, Willow Branch Drive	2030	4 to 6	8	11.00	21,120	21,120	3.0%		39,230				46,593									
4,840	440	440	Linear Feet	Sport Courts, Fence, Pool House	2030	to 25	8	39.50	17,380	17,380	0.5%															
4,841	590	590	Linear Feet	Sport Courts, Fence, Willow Branch Drive	2026	to 25	4	39.50	23,305	23,305	1.8%													63,200		
4,860	1,800	1,800	Square Yards	Sport Courts, Surface Replacement, Pool House	2025	to 25	3	47.00	84,600	84,600	6.4%												221,667			
4,861	1,920	1,920	Square Yards	Sport Courts, Surface Replacement, Willow Branch Drive	2025	to 25	3	47.00	90,240	90,240	6.9%												236,444			
Pool House Elements																										
5,580	1	1	Allowance	Rest Room, Renovation	2024	to 25	2	25,000.00	25,000	25,000	1.8%															
5,600	30	30	Squares	Roof Assembly, Asphalt Shingles	2028	15 to 20	6	470.00	14,100	14,100	1.1%										34,488					
5,720	1	1	Allowance	Security System	2028	10 to 15	6	6,000.00	6,000	6,000	0.4%					12,357										
5,820	2,100	2,100	Square Feet	Walls, Masonry, Inspections and Repairs	2028	to 10	6	3.60	7,560	7,560	0.8%	13,109									18,491					
Pool Elements																										
6,200	2,680	2,680	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Competition Pool	2031	8 to 12	9	1.50	3,960	3,960	0.5%			7,671											10,820	
6,201	11,410	11,410	Square Feet	Concrete Decks, Inspections, Partial Replacements and Repairs, Remaining	2023	8 to 12	1	1.50	17,115	17,115	1.1%					35,247										
6,400	930	930	Linear Feet	Fence, Chain Link	2028	to 25	6	20.00	18,600	18,600	0.5%															
6,500	4	1	Allowance	Furniture, Phased	2023	to 12	1 to 10	11,000.00	11,000	44,000	3.9%	19,074		21,148			23,447			25,996				28,822		
6,600	4	1	Allowance	Mechanical Equipment, Phased	2026	to 15	4 to 13	4,500.00	4,500	18,000	1.3%		8,359			9,267			10,275				11,392			
6,800	4,220	4,220	Square Feet	Pod Finishes, Paint, Baby and Competition Pool	2025	3 to 5	3	3.50	14,805	14,805	3.7%			28,463									37,480			
6,801	3,810	3,810	Square Feet	Pod Finishes, Plaster "L" Pool	2023	8 to 12	1	20.00	76,200	76,200	4.8%					156,029										
6,802	410	410	Linear Feet	Pod Finishes, Tile "L" Pool	2023	15 to 25	1	37.00	15,170	15,170	0.3%															
6,900	4,300	4,300	Square Feet	Structures and Decks, Total Replacement ("L" Pool and Baby Pool)	2033	to 60	11	190.00	817,000	817,000	24.4%															

Anticipated Expenditures, By Year (\$4,897,453 over 30 years)

0

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS The Forest Ridge Association Dayton, Ohio

Association	Individual Reserve Budgets & Cash Flows for the Next 30 Years																
	FY2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Dayton, Ohio																	
Reserves at Beginning of Year		N/A	0	26,482	73,923	56,915	212,826	401,122	519,772	681,220	753,618	923,465	1,154,046	161,269	209,457	223,405	337,863
Total Recommended Reserve Contributions	(Note 1)	N/A	180,000	186,300	192,800	199,500	206,500	213,700	221,200	228,900	236,900	245,200	253,800	105,000	108,700	112,500	116,400
Estimated Interest Earned, During Year	(Note 2)	N/A	92	350	456	941	2,141	3,212	4,189	5,004	5,849	7,246	4,588	1,293	1,958	2,686	
Anticipated Expenditures, By Year	(Note 3)	N/A	(153,610)	(139,209)	(210,264)	(44,530)	(20,345)	(98,262)	(63,941)	(161,506)	(72,902)	(21,865)	(1,251,165)	(58,105)	(96,262)	0	(24,804)
Anticipated Reserves at Year End		\$0	\$26,482	\$73,923	\$56,915	\$212,826	\$401,122	\$519,772	\$681,220	\$753,618	\$923,465	\$1,154,046	\$161,269	\$209,457	\$223,405	\$337,863	\$432,145
													(NOTE 5)				

(NOTE 5)

(NOTE 5)

(continued)

	Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued														
	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052
Reserves at Beginning of Year	432,145	479,990	563,314	598,167	599,840	660,955	482,819	547,221	581,522	734,537	837,843	899,446	728,685	134,652	139,100
Total Recommended Reserve Contributions	120,500	124,700	129,100	133,600	136,300	143,100	148,100	153,300	158,700	164,300	170,100	176,100	182,300	188,700	195,300
Estimated Interest Earned, During Year	3,181	3,639	4,051	4,178	4,397	3,989	3,593	3,937	4,590	5,484	6,059	5,679	3,011	955	1,657
Anticipated Expenditures, By Year	(75,836)	(45,015)	(98,298)	(136,105)	(81,582)	(325,225)	(87,291)	(122,936)	(10,275)	(66,478)	(114,556)	(352,540)	(779,344)	(185,207)	0
Anticipated Reserves at Year End	\$479,990	\$563,314	\$598,167	\$599,840	\$660,955	\$482,819	\$547,221	\$581,522	\$734,537	\$837,843	\$899,446	\$728,685	\$134,652	\$139,100	\$336,057

(NOTE 4)

(NOTE 5)

Explanatory Notes:

- 1) We were not provided financial statements as a part of our reserve study assessment. We therefore assume a \$0 starting balance as of January 1, 2023. FY2022 starts January 1, 2022 and ends December 31, 2022.
- 2) 2023 is the first year of recommended contributions.
- 3) 0.7% is the estimated annual rate of return on invested reserves
- 4) Accumulated year 2052 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

FIVE-YEAR OUTLOOK**The Forest Ridge
Association**
Dayton, Ohio

Line Item	Reserve Component Inventory	RUL = 0 FY2022	1 2023	2 2024	3 2025	4 2026	5 2027
<u>Property Site Elements</u>							
4.020	Asphalt Pavement, Crack Repair, Patch, Seal Coat, and Striping		5,310				6,093
4.140	Concrete Sidewalks, Partial			21,374			
4.200	Culvert, Inspections and Capital Repairs			10,712			
4.460	Maintenance Sheds, Replacement			80,342			
4.660	Playground Equipment, Forest Ridge Boulevard		15,525				
4.662	Playground Equipment, Meadowsweet Drive						14,252
4.800	Signage, Entrance Monuments, Renovation		9,108				
4.841	Sport Courts, Fence, Willow Branch Drive					26,743	
4.860	Sport Courts, Surface Replacement, Pool House				93,798		
4.861	Sport Courts, Surface Replacement, Willow Branch Drive				100,051		
<u>Pool House Elements</u>							
5.580	Rest Room, Renovation			26,781			
<u>Pool Elements</u>							
6.201	Concrete Decks, Inspections, Partial Replacements and Repairs, Remaining		17,714				
6.500	Furniture, Phased		11,385			12,623	
6.600	Mechanical Equipment, Phased					5,164	
6.800	Pool Finishes, Paint, Baby and Competition Pool				16,415		
6.801	Pool Finishes, Plaster "L" Pool		78,867				
6.802	Pool Finishes, Tile "L" Pool		15,701				
Anticipated Expenditures, By Year (\$4,897,458 over 30 years)							
		0	153,610	139,209	210,264	44,530	20,345

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 Items: 4.020 through 4.045

Quantity: Approximately 2,700 square yards at the parking areas near the pool house and the courts along Willow Branch Drive

History:

- Repaving: The age was unavailable at the time of our inspection.
- Repairs: The age was unavailable at the time of our inspection.

Condition: Fair overall with isolated cracks and deterioration evident



Pool house parking area



Pavement cracks at pool house



Willow Branch Drive pavement cracks



Willow Branch Drive asphalt pavement parking lot overview

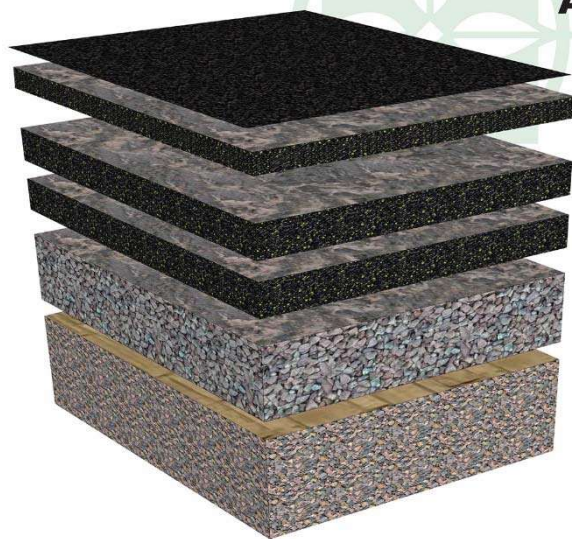


Willow Branch Drive pavement cracks (note organic growth)

Useful Life: 15- to 20-years with the benefit of patch repairs events every three- to five-years

Component Detail Notes: Patch repairs are conducted at areas exhibiting settlement, potholes, or excessive cracking. These conditions typically occur near high traffic areas, catch basins, and pavement edges.

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 The Forest Ridge Association:



ASPHALT DIAGRAM

Sealcoat or Wearing Surface

Asphalt Overlay Not to Exceed
1.5 inch Thickness per Lift or Layer

Original Pavement Inspected and
milled until sound pavement is found,
usually comprised of two layers

**Compacted Crushed Stone
or Aggregate Base**

**Subbase of Undisturbed
Native Soils** Compacted to
95% dry density

© Reserve Advisors

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 for initial repaving followed by the total replacement method for subsequent repaving at The Forest Ridge 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. Our cost includes an allowance for patching of up to two percent (2%) of the pavement. Our cost for milling and overlayment includes area patching of up to ten percent (10%).

Bridges, Wood

Line Item: 4.100

Quantity: Three wood bridges comprise a total of 630 square feet

History: Varied ages. The Association has conducted erosion remediation along the shoreline in the past. The Board informs us the remediation is satisfactory and do not foresee a need for future remediation.

Condition: Fair overall with isolated deterioration, wood split and erosion remediation evident.



Bridge overview



Alternate bridge



Alternate bridge overview



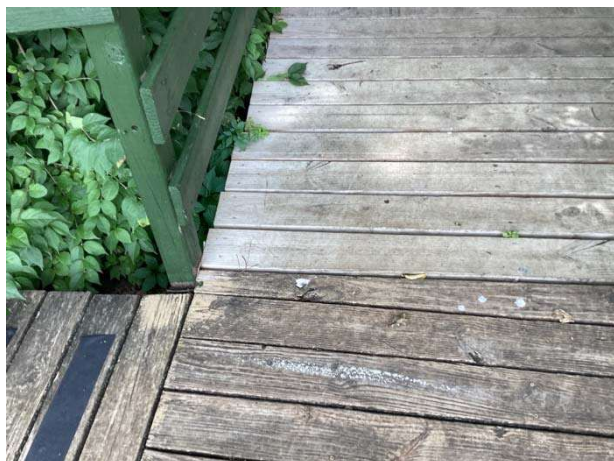
Erosion remediation



Erosion remediation



Weathered deck boards



Replaced decking near the soccer fields



Railing wood split

Useful Life: 15- to 25-years. The rates and types of deterioration are not uniform due to the nature of wood. Replacement is normally an ongoing process which eventually leads to a complete replacement for economic or aesthetic reasons.

Component Detail Notes: Bridge construction includes the following:

- Deck boards fastened with screws
- Wood and metal railings with horizontal pickets. This configuration promotes climbing and is potentially dangerous.
- Wood column supported frames
- Exposed concrete footings

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

- Annually:
 - Inspect to identify and correct any unsafe conditions
 - Secure loose fasteners and replace deteriorated fasteners
 - Replace deteriorated wood components

- Check railing stability and fasteners
- Every three years:
 - Power wash with algaecide and application of sealer/stain if applicable

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

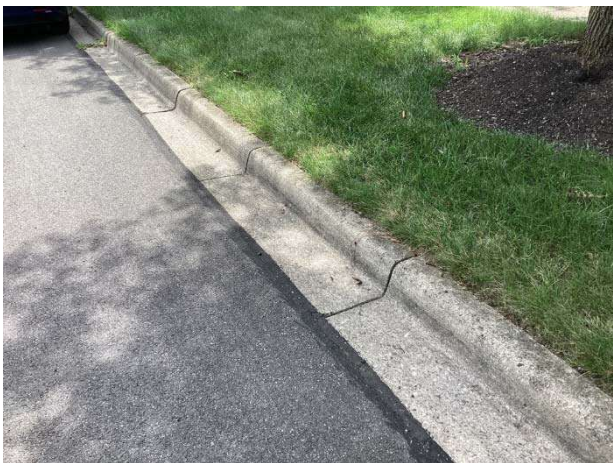
Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

Concrete Curbs and Gutters

Line Item: 4.110

Quantity: Approximately 6,600 linear feet located along the common areas of the Association. The Board informs us the municipality will make repairs in conjunction with street repairs and assess the Association at that time.

Condition: Fair overall with isolated damage and cracks evident.



Concrete curb and gutter



Concrete damage (Willow Branch Drive shown)

Useful Life: Up to 65 years although interim deterioration of areas is common

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

- Annually:
 - Inspect and repair major cracks, spalls and trip hazards
 - Mark with orange safety paint prior to replacement or repair
 - Repair or perform concrete leveling in areas in immediate need of repair or possible safety hazard

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We estimate that up to 2,650 linear feet of curbs and gutters, or forty percent (40.2%) of the total, will require replacement during the next 30 years.

Concrete Sidewalks

Line Item: 4.140

Quantity: Approximately 26,000 square feet located at the common areas of the Association, of which approximately 400 square feet is stamped concrete located at the gazebo.

Condition: Fair overall with isolated cracks and deterioration evident. The Board informs us of isolated issues with tree roots causing upheaval.



Sidewalk cracks



Sidewalk cracks near pool house



Sidewalk cracks near gazebo



Stamped concrete at the gazebo



Stamped sidewalk cracks



Sidewalk upheaval at Little Jeep Park

Useful Life: Up to 65 years although interim deterioration of areas is common

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

- Annually:
 - Inspect and repair major cracks, spalls and trip hazards
 - Mark with orange safety paint prior to replacement or repair
 - Repair or perform concrete leveling in areas in immediate need of repair or possible safety hazard

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We estimate that up to 10,410 square feet of concrete sidewalks, or forty percent (40%) of the total, will require replacement during the next 30 years.

Culvert, Inspections and Capital Repairs

Line Item: 4.200

Quantity: The Association maintains the culvert located near Little Jeep Park.

History: The age was unavailable at the time of our inspection.

Condition: Poor overall with periodic cracks, settlement and damage evident.



Culvert overview



Culvert damage



Culvert cracks

Useful Life: Inspections and repairs every 10- to 15-years. Repairs may include crack repairs and partial replacement of concrete. However, the exact scope of work may vary and we recommend the Association consult with an engineer to conduct an invasive inspection.

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.

Gazebo

Line Item: 4.360

Quantity: One gazebo located near the entrance at Forest Ridge Boulevard and Union Schoolhouse Road.

History: The Board informs us the roof is approximately five years of age. The age of the remaining components was unavailable at the time of our inspection.

Condition: Fair overall with isolated finish deterioration evident.



Gazebo



Gazebo decking (note finish deterioration)

Useful Life: Up to 25 years with periodic maintenance

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for paint applications and repairs through the operating budget. Our cost for renovation includes allowances for replacement of the asphalt shingle roof, benches, railings and wood decking and repairs to the gazebo structure.

Maintenance Sheds, Replacement

Line Item: 4.460

Quantity: The Association is responsible for the maintenance buildings on Meadowsweet Drive.

History: Unavailable at the time of our inspection

Condition: Poor overall. We note systemic damage, deterioration and likely roof structure damage at the east building.



Maintenance sheds



Roof damage and apparent structural damage



Siding damage



Siding damage

Useful Life: Up to 25 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 costs includes demolition and installation of metal storage sheds and replacement of the gravel driveway.

Pipes, Subsurface Utilities

Line Item: 4.650

Condition: Reported satisfactory

Useful Life: Up to and likely beyond 85 years

Component Detail Notes: The Association maintains the subsurface utility pipes throughout the property. The exact amounts and locations of the subsurface utility pipes

were not ascertained due to the nature of the underground construction and the non-invasive nature of the inspection.

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

- As-needed:
 - Video inspect waste pipes for breaks and damaged piping
 - Monitor for water and gas leaks through pressure losses and present odors
 - Partially replace damaged section of pipes

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. At this time we do not anticipate replacement of continuous lengths of subsurface utility pipes. Rather we recommend the Association budget for repairs to isolated occurrences of breached utilities. Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, The Forest Ridge Association could budget sufficient reserves for these utility repairs and have the opportunity to adjust its future reserves up or down to meet any changes to these budgetary estimates. Updates of this Reserve Study would incorporate changes to budgetary costs through a continued historical analysis of the rate of deterioration and actual repairs to budget sufficient reserves.

Playground Equipment

Line Items: 4.660 to 4.664

Quantity: Playground equipment includes the following elements:

- Benches
- Monkey bars
- Playsets and swings
- Safety surface
- Slides
- Trash receptacles

History: Varies, the Association installed a playground and safety surface at the pool house and Little Jeep Park in 2021. The age of the remaining equipment was unavailable at the time of our inspection.

Condition: The newly installed equipment is in good overall condition and the remaining equipment is in fair to poor overall condition with periodic finish deterioration, rust and damage evident.



Forest Ridge Boulevard playground equipment



Forest Ridge Boulevard finish deterioration and rust



Forest Ridge Boulevard swing damage



Forest Ridge Boulevard monkey bars (note finish deterioration)



Little Jeep playground equipment



Little Jeep playground equipment



Little Jeep playground missing swings



Meadowsweet Drive playground equipment



Meadowsweet Drive slide damage



Meadowsweet Drive finish deterioration



Pool house playground equipment overview



Pool house equipment finish deterioration



Pool house swings



Damaged swing (pool house playground shown)



Pool house alternate swings (note damage)



Pool house playground equipment



Willow Branch Drive playground equipment



Willow Branch Drive damaged swing



Willow Branch Drive playground equipment

Useful Life: 15- to 20-years

Component Detail Notes: Safety is the major purpose for maintaining playground equipment. We recommend an annual inspection of the playground equipment to identify and repair as normal maintenance loose connections and fasteners or damaged elements. We suggest the Association learn more about the specific requirements of playground equipment at PlaygroundSafety.org. We recommend the use of a specialist for the design or replacement of the playground equipment environment.

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

- Annually:
 - Inspect and repair loose connections and fasteners or damaged elements
 - Inspect for safety hazards and adequate coverage of ground surface cover

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 include an allowance in the unit cost for replacement of the safety surface and border at Little Jeep Park and the Pool House playground areas.

Signage, Entrance Monuments

Line Item: 4.800

Quantity: The property identification signage includes the following elements:

- Asphalt Shingles
- Landscaping

- Light Fixtures
- Masonry
- Paint Finishes

History: The age was unavailable at the time of our inspection.

Condition: Poor overall with periodic deterioration and damage evident.



Entrance monument



Sign deterioration



Masonry damage



Cracks and damage



Paint finish deterioration

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.

Sport Courts, Fences

Line Items: 4.840 and 4.841

Quantity: Approximately 440 linear feet at the pool house and 590 linear feet at Willow Branch Drive

History: Unavailable at the time of our inspection.

Condition: The pool house fence is in fair overall condition with isolated warped webbing evident. The Willow Branch Drive fence is in fair to poor condition with periodic rust and warped webbing evident.



Chain link fence (note warped webbing)



Willow Branch Drive fence (note warped webbing)



Willow Branch Drive fence post rust

Useful Life: Up 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.

Sport Courts, Surface

Line Items: 4.830, 4.831, 4.860 and 4.861

Quantity:

- Approximately 1,800 square yards of asphalt comprising two tennis courts and one basketball court at the pool house.
- Approximately 1,920 square yards of asphalt comprising two tennis courts and one basketball court at Willow Branch Drive.

History:

- Color Coat: The Association painted the lines at the Willow Branch Drive courts in 2021. The age of the remaining color coats was unavailable at the time of our inspection.
- Surface: The age of the playing surfaces was unavailable at the time of our inspection.

Condition: The pool house surfaces are in poor overall condition with systemic cracks, settlement, poor drainage, standards damage and color coat fade evident. The Willow Branch Drive surfaces are in fair overall condition with isolated cracks evident.



Pool house tennis court overview



Pool house basketball court overview



Pool house court repair



Pool house basketball court surface cracks and deterioration



Basketball goal



Pool house tennis court surface cracks



Pool house color coat fade



Pool house tennis court surface cracks



Pool house tennis court surface cracks



Pool house tennis court cracks (note net damage)



Willow Branch Drive tennis court overview



Willow Branch Drive basketball court overview



Willow Branch Drive surface cracks



Willow Branch Drive surface cracks

Useful Life: Up to 25 years for replacement of the surface with the benefit of color coat applications and repairs every four- to six-years

Preventative Maintenance Notes: Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the asphalt playing surface. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
 - Inspect and repair large cracks, trip hazards and possibly safety hazards
 - Verify gate and fencing is secure
 - Verify lighting is working properly if applicable
 - Inspect and repair standards and windscreens 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.

Pool House Elements



Pool house overview

Rest Rooms

Line Item: 5.580

Quantity: The rest room components include:

- Concrete floors with floor coverings
- Paint finishes at the walls
- Wood ceiling finishes
- Light fixtures
- Plumbing fixtures

History: The Association partially replaced the lights with LED fixtures recently. The exact ages of the remaining components were unavailable at the time of our inspection.

Condition: Fair to poor overall with periodic deterioration evident.



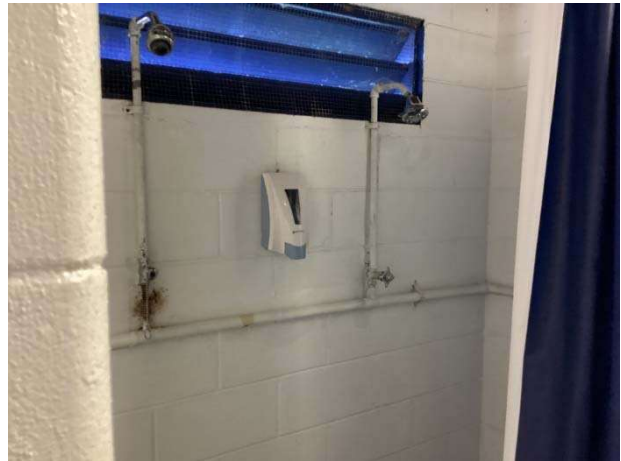
Displaced drain cover



Floor covering



Missing floor coverings



Shower overview



Partition finish deterioration



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 Assembly, Asphalt Shingles

Line Item: 5.600

Quantity: Approximately 30 *squares*¹ of asphalt shingle roof and 240 linear feet of aluminum gutters and downspouts.

History: The age was unavailable at the time of our inspection.

Condition: Fair to poor overall with isolated cupped shingles, gutter deflection, incorrect slope and sheathing deflection evident from our visual inspection from the ground. The Board does not report a history of leaks.



Gutter deflection



Incorrect slope



Discoloration



Roof overview

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



Shingle curl

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

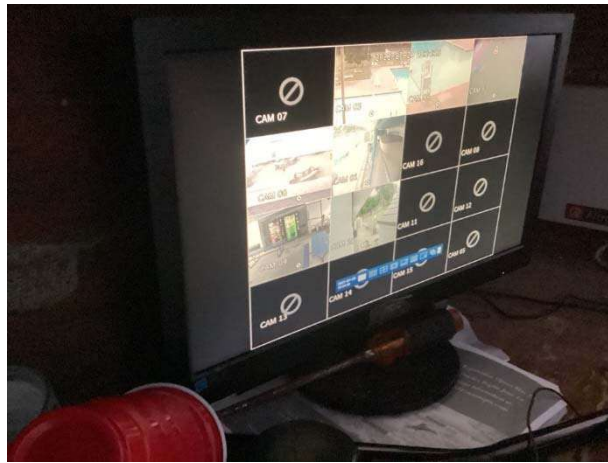
Line Item: 5.720

Quantity: The Forest Ridge Association utilizes the following security system components:

- Cameras
- Multiplexer
- Recorder

History: The age was unavailable at the time of our inspection.

Condition: Reported satisfactory without operational deficiencies



Security system

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 all of the security system components per event.

Walls, Masonry

Line Item: 5.820

Quantity: Approximately 2,100 square feet of masonry comprises the exterior walls

History: The Association recently painted the building.

Condition: Fair overall with the following evident:

- Minimal previous repairs evident
- Masonry exhibits isolated cracks
- Masonry exhibits minor spalls



Paint finish deterioration

Useful Life: We advise a complete inspection of the masonry and related masonry repairs up to 10 years to forestall deterioration.

Component Detail Notes: Common types of masonry deterioration include efflorescence, spalling, joint deterioration and cracking. The primary cause of efflorescence, cracks and face spall is water infiltration, therefore prevention of water infiltration is the principal concern for the maintenance of masonry applications.

Repointing is a process of raking and cutting out defective mortar to a depth of not less than $\frac{1}{2}$ inch nor more than $\frac{3}{4}$ inch and replacing it with new mortar. Face grouting is the process of placing mortar over top of the existing mortar. We advise against face grouting because the existing, often deteriorated mortar does not provide a solid base for the new mortar. New mortar spalls at face grouted areas will likely occur. One purpose of a mortar joint is to protect the masonry by relieving stresses within the wall caused by expansion,

contraction, moisture migration and settlement. Repointed mortar joints are more effective if the mortar is softer and more permeable than the masonry units, and no harder or less permeable than the existing mortar. The masonry contractor should address these issues within the proposed scope of work. The masonry has a paint application. Paint applications on masonry must allow entrained moisture in the masonry to migrate to the masonry surface and evaporate. A non-permeable paint application traps this moisture and increases masonry spalling, efflorescence and eventual degradation of the paint application. The prior types of paint, applications and methods of preparation affect the ability of the masonry to dissipate entrained moisture. We cannot determine the type of paint, application conditions or methods due to the visual and non-invasive nature of our inspection. The use of a permeable masonry paint application may also cover presently unobservable mortar and/or masonry deterioration requiring repair. We recommend the existing paint application be removed prior to the application of a new coat. A water pressure wash removal method is preferred rather than by silica or sandblasting. Sandblasting will likely remove the outer face of the masonry and increase the probability of future spalling and water infiltration. After removal of the prior applications of paint, general repointing repairs to the masonry and mortar is required. Finally, a new permeable paint application specifically designed for masonry applications should be applied as per the manufacturer's directions.

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 the following activities:

- Complete inspection of the masonry and paint finish applications
- Repointing of up to ten percent (10%) of the masonry
- Replacement of a limited amount of the masonry (The exact amount of area in need of replacement will be discretionary based on the actual future conditions and the desired appearance.)
- Paint finishes and capital repairs to the soffit and fascia
- Paint finishes to the masonry

Pool Elements



Baby pool



Competition pool



“L” shaped pool

Concrete Decks

Line Items: 6.200 and 6.201

Quantity:

- Approximately 2,660 square feet at the competition pool
- Approximately 11,410 square feet at the remaining pool decks; this quantity includes the concession area at the pool house

History: The Association replaced the deck surrounding the competition pool in 2021. The remaining pool deck is likely original.

Condition: The recently replaced deck is in good overall condition. The remaining deck is in fair overall condition with periodic cracks and deterioration evident.



Recently replaced deck



Concrete cracks



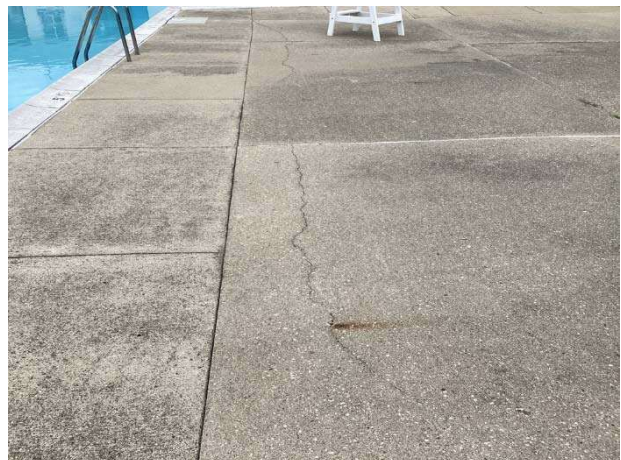
Joint sealant deterioration



Concrete cracks



Concrete repair (note coping repair)



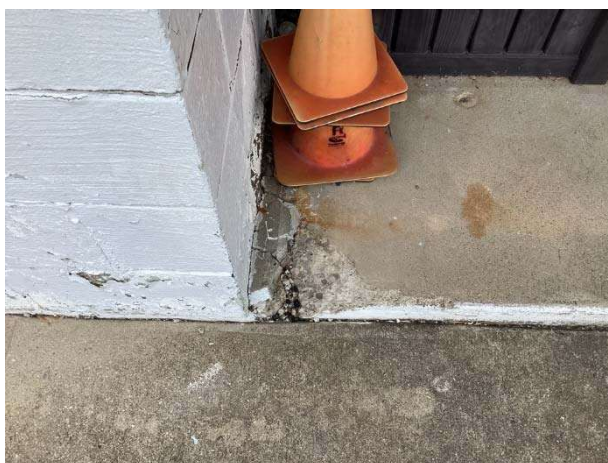
Concrete cracks



Concrete cracks and damage



Coping damage



Concrete damage

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 decks 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

Fences, Chain Link

Line Item: 6.400

Quantity: Approximately 820 linear feet of six-foot chain link fence and 110 feet of three-foot chain link fence surround the pools.

History: The age was unavailable at the time of our inspection.

Condition: Fair overall with periodic rust evident.



Chain link pool fence



Fence post rust



Webbing rust



Fence post rust



Baby 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 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
- Diving boards
- Grills
- Ladders and life safety equipment
- Lounges
- Tables

History: Varied ages, the Association typically replaces the furniture on an as needed basis. The Association informs us they plan to replace the concrete furniture with vinyl.

Condition: Varies with isolated damage, worn vinyl and rust.



Pool furniture



Pool furniture



Concrete seat damage



Concrete seat damage



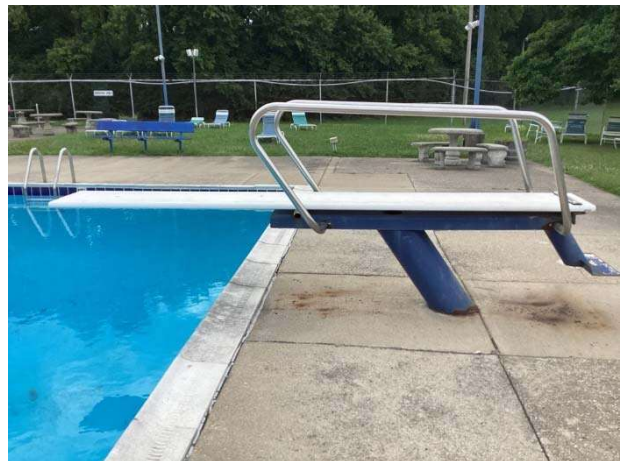
Pool furniture



Worn vinyl



Diving board rust



Diving board overview



Grills



Furniture damage

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:

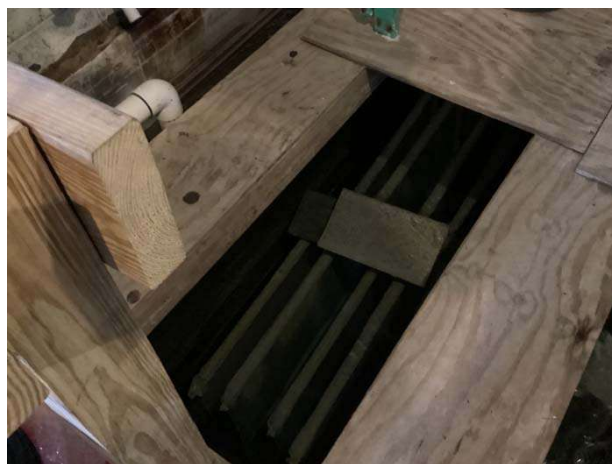
- Automatic chlorinator and controls
- Interconnected pipe, fittings and valves
- Pumps and filters

History: Varies

Condition: Reported satisfactory without operational deficiencies.



Automated chlorinators



Competition pool filters



Pool filter



Pool pump

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 twenty-five percent (25%) of the equipment per event. We consider interim replacement of motors and minor repairs as normal maintenance.

Pool Finish, Paint

Line Item: 6.800

Quantity: 4,230 square feet of paint finish based on the horizontal surface area located at the baby and competition pools.

History: Repainted in 2021.

Condition: Good overall



Baby pool



Competition pool



Competition pool detail

Useful Life: Three- to five-years for replacement of the paint finish

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

- Semi-annually:
 - Inspect and repair significant finish deterioration, 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. Removal and replacement provides the opportunity to inspect the pool structures and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structures, we recommend the Association budget for the following:

- Removal and replacement of the paint finishes
- Partial replacements of the scuppers and coping as needed
- Replacement of joint sealants as needed
- Concrete structure repairs as needed

Pool Finishes, Plaster and Tile

Line Items: 6.801 and 6.802

Quantity: 3,810 square feet of plaster based on the horizontal surface area and approximately 410 linear feet of tile at the “L” shaped pool.

History:

- Plaster finish: The age was unavailable at the time of our inspection.
- Tile: The age was unavailable at the time of our inspection.

Condition: Fair to poor overall with isolated cracks and reported water loss.



“L” shaped pool overview



Plaster floor repair



Pool plaster finish with tile perimeter

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 structures and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structures, we recommend the Association budget for the following:

- Removal and replacement of the plaster finishes
- 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

Structures and Decks

Line Item: 6.900

Quantity: 4,300 square feet of horizontal surface area located at the “L” shaped pool, baby pool and concession area of the pool house.

History: The “L” shaped and baby pool structures are original. The Association conducted major repairs to the structure and deck of the competition pool in 2021. We do not anticipate the need to replace the competition pool within the 30-year scope of this Reserve Study.

Conditions: Visually appear in fair condition. The concrete floors and walls have a plaster finish. This finish makes it difficult to thoroughly inspect the concrete structures during a noninvasive visual inspection.

Useful Life: Up to 60 years

Component Detail Notes: The need to replace a pool structure depends on the condition of the concrete structure, the condition of the embedded or concealed water circulation piping, possible long term uneven settlement of the structure, and the increasing cost of repair and maintenance. Deterioration of any one of these component systems could result in complete replacement of the pool. For example, deferral of a deteriorated piping system could result in settlement and cracks in the pool structure. This mode of failure is more common as the system ages and deterioration of the piping system goes undetected. For reserve budgeting purposes, we recommend The Forest Ridge Association plan to replace the following components:

- Concrete decks
- Pool structures
- Subsurface piping

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.

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.

The Forest Ridge 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 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 standards¹ 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
- Local² 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 Dayton, Ohio at an annual inflation rate³. Isolated or regional markets of greater

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.

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

- The past and current maintenance practices of The Forest Ridge 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

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.

MATTHEW C. FERGUSON, RS
Engineer

CURRENT CLIENT SERVICES

Matthew C. Ferguson is an Engineer and Advisor for Reserve Advisors. Mr. Ferguson 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 Reports for apartments, condominiums, townhomes and homeowner associations.



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

One Neighborhood Condominium Association – Built between 2007 and 2010 this association comprises 74 units in eight unique buildings located in the heart of downtown Columbus Ohio. The developer mixed modern units with curtain walls and metal siding in with traditional brownstones, row homes and garden units. The buildings include asphalt shingle, EPDM and slate roofs atop units with stucco siding, painted brick, and steel, wood and concrete balconies and exterior staircases.

Liberty Grove Homeowners Association - Located in Plainfield, Illinois, this planned unit development was built from 2002 to 2014. This property includes walking paths, two ponds, a zero entry pool and water slide nestled between 682 single-family homes. A bridge connecting the two ponds creates an ideal vantage point to take in the surroundings.

Nantucket Landing South Condominium Association - Built in 1988 and located in Dayton, Ohio, this association comprises 67 units with wood shake siding and asphalt shingle roofs surrounding two ponds with an interconnected culvert and an outdoor swimming pool. The nautical theme throughout creates a classic community appeal.

Willow Creek Condominium Owners' Association Inc. – This association located in Dayton, Ohio is responsible for the common elements shared by 132 single family homes. With a tennis court, and outdoor pool located onsite, residents have all they could desire within walking distance of their home.

Paragon Mill Condominium Owners' Association Inc. - Consisting of 263 units in 26 buildings, this association was built from 2008 to 2020. This community, located in Burlington, Kentucky, is situated amongst rolling hills with an impressive clubhouse featuring a fitness center, pool and water wheel feature.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Ferguson worked as a Maintenance Director overseeing the maintenance and support for a Five Seasons Family Sports Club. His responsibilities included managing the IT department and diagnosing facility and equipment problems related to the 25,000-square foot fitness, tennis and pool facility.

EDUCATION

Wright State University - B.S. Industrial and Systems Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

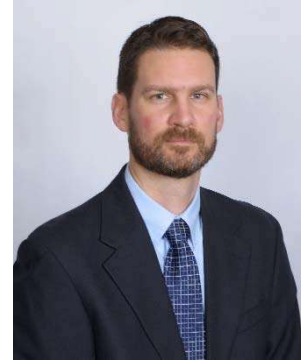
Reserve Specialist (RS) – Community Associations Institute

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:

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 The Forest Ridge 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) The Forest Ridge 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, 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 our report. The inspection is made by employees generally familiar with real estate and building construction but in the absence of invasive testing RA cannot opine on, nor is RA responsible for, the structural integrity of the property including its conformity to specific governmental code requirements for fire, building, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

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 water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions. RA assumes no responsibility for any such conditions. The Report contains opinions of estimated costs and remaining useful lives which are neither a guarantee of the actual costs of replacement 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.

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, however, considers any additional information made available to us within 6 months of issuing the Report if a timely request for a revised Report is made. 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.

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 this Report is limited to only the purpose stated herein. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and you shall hold RA harmless from any consequences of such use. Use by any unauthorized third party is unlawful. 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 our Report in its entirety to the following third parties: members of your organization, your accountant, attorney, financial institution and property manager who need to review the information contained herein. Without the written consent of RA, you shall not disclose the Report to any other third party. The Report contains intellectual property developed by RA and **shall not be reproduced or distributed to any party that conducts reserve studies without the written consent of RA**.

RA will include your name in our client lists. RA reserves the right to 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 - 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. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court for the State of Wisconsin.