Revised
RESERVE STUDY
Meadowlake Farms Homes Association

Yorktown, Virginia

Inspected - February 10, 2021
Revised - September 1, 2021

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

Meadowlake Farms Homes Association
Yorktown, Virginia

Dear Board of Directors of Meadowlake Farms Homes Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of Meadowlake Farms Homes Association in Yorktown, Virginia and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, February 10, 2021.

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

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Meadowlake Farms Homes 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 September 1, 2021 by

Reserve Advisors, LLC

Visual Inspection and Report by: Reid M. Nelson
Review by: Alan M. Ebert, RS, PRA[2], 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: Meadowlake Farms Homes Association (Meadowlake Farms)
Location: Yorktown, Virginia
Reference: 93338

Property Basics: Meadowlake Farms Homes Association is a homeowners association which is responsible for the common elements shared by 193 single family homes. The community was built in 1987. The community contains a pool house and pool.

Reserve Components Identified: 28 Reserve Components.

Inspection Date: February 10, 2021. We conducted previous inspections in 1993, 2007 and 2016.

Funding Goal: The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes this threshold funding year in 2046 due to replacement of pool deck and structure.

Cash Flow Method: 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
- 3.0% annual rate of return on invested reserves (Per Management request)
- 2.0% future Inflation Rate for estimating Future Replacement Costs

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

Unaudited Cash Status of Reserve Fund:

- $271,628 as of January 1, 2021
- 2021 budgeted Reserve Contributions of $31,000

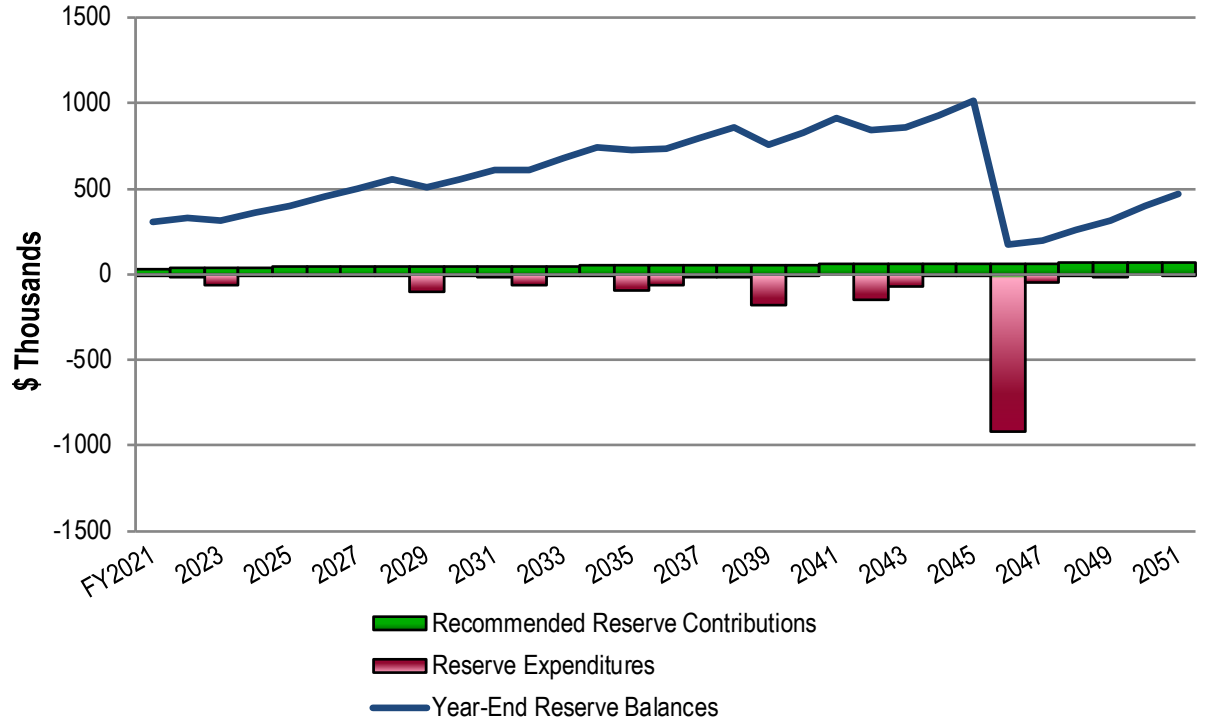
Project Prioritization: We note anticipated Reserve Expenditures for the next 30 years in the ***Reserve Expenditures*** tables and include a ***Five-Year Outlook*** table following the ***Reserve Funding Plan*** in Section 3. We recommend the Association prioritize repaving as deferral may lead to increased costs and vehicle damage based on the conditions identified at the time of our inspection.

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

- Phased increases of $3,200 from 2022 through 2024
- Inflationary increases through 2051, the limit of this study's Cash Flow Analysis
- Initial adjustment in Reserve Contributions of $3,200 represents an average annual increase of $16.58 per homeowner and about a three percent (2.9%) adjustment in the 2021 total Operating Budget of $111,350.
- The Association may ascribe the actual contributions and assessments per owner based upon percent ownership, as defined by the Association's governing documents.

Meadowlake Farms
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2022	34,200	329,514	2032	47,500	612,276	2042	58,000	843,617
2023	37,400	313,053	2033	48,500	676,560	2043	59,200	857,307
2024	40,600	360,422	2034	49,500	741,848	2044	60,400	931,528
2025	41,400	400,840	2035	50,500	721,712	2045	61,600	1,014,162
2026	42,200	451,216	2036	51,500	733,931	2046	62,800	172,479
2027	43,000	496,596	2037	52,500	795,303	2047	64,100	194,605
2028	43,900	552,555	2038	53,600	858,643	2048	65,400	261,626
2029	44,800	508,048	2039	54,700	754,328	2049	66,700	317,030
2030	45,700	556,939	2040	55,800	829,159	2050	68,000	395,561
2031	46,600	607,182	2041	56,900	911,787	2051	69,400	472,123



2. RESERVE STUDY REPORT

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

Meadowlake Farms Homes Association

Yorktown, Virginia

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, February 10, 2021. We conducted previous inspections in 1993, 2007 and 2016.

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

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

IDENTIFICATION OF PROPERTY

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

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

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Homeowners
- Property Maintained by Others

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

- Meadowlake Farms 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, Common
- Foundations, Pool House (1989) and Storage Shed (2016)
- Pipes, Interior Building, Water and Sewer, Pool House
- Structural Frames, Pool House (1989) and Storage Shed (2016)

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 $3,000 (Except Concrete Sidewalks) (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Bulletin Board, Pool House
- Financial Audit
- Gates, Paint Applications, Pool House Parking
- Hot Water Heater, Pool House
- Landscape
- Light Fixtures, Exterior, Pool House
- Light Poles, Wood, Paint Finishes
- Paint Finishes, Restrooms
- Paint Finishes, Touch Up
- Playground, Mulch Replenishment
- Pond, Bathymetric Surveys
- Pond, Erosion Control (At the request of the Board. A pond survey by *Christopher Newport University* reports the shoreline is in good overall condition.)

Typical shared shoreline

Typical shoreline

- Screened Windows, Pool House
- Storage Bins, At Pool House
- Tennis Court Standards

Typical tennis standard

- Other Repairs normally funded through the Operating Budget

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

- Driveways
- Homes and Lots
- Mailboxes
- Pipes, Subsurface Laterals, Water and Sewer
- Pond, Erosion Control, Lots

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

- Culverts, Storm Drainage, Driveways and Streets (Municipality)
- Drainage Swales (Municipality)
- Pipes, Subsurface Utilities, Water, Sewer and Storm Drainage (Municipality)
- Pond, Inlet and Outlet Structures (Municipality)
- Signage, Street and Traffic ({Municipality)
- Streets Systems (Municipality)
- Sub-Association Neighborhood (Meadowlake Farms Townhome Association)

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
- 2021 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***.

Years 2021 to 2036

RESERVE EXPENDITURES

Meadowlake Farms Homes Association
Yorktown, Virginia

Explanatory Notes:
1) 2.0% is the estimated Inflation Rate for estimating Future Replacement Costs.
2) FY2021 is Fiscal Year beginning January 1, 2021 and ending December 31, 2021.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Life Analysis, Years Remaining	Costs, $ Unit (2021)	Costs, $ Per Phase (2021)	Costs, $ Total (2021)	Percentage of Future Expenditures	RUL = 0 FY2021	1 2022	2 2023	3 2024	4 2025	5 2026	6 2027	7 2028	8 2029	9 2030	10 2031	11 2032	12 2033	13 2034	14 2035	15 2036
				Property Site Elements																							
4.020	1,250	**1,250**	Square Yards	Asphalt Pavement, Crack Repair, Patch, Seal Coat, and Striping	2027	3 to 5	6	2.50	3,125	3,125	**1.4%**							3,519				3,809				4,123	
4.045	1,250	**1,250**	Square Yards	Asphalt Pavement, Total Replacement	2023	15 to 20	2	34.50	43,125	43,125	**5.8%**			44,867													
4.100	1	**1**	Each	Baseball Diamond, Backstop	2031	to 25	10	8,000.00	8,000	8,000	**0.5%**											9,752					
4.140	1,460	**245**	Square Feet	Concrete Sidewalks, Partial	2023	to 65	2 to 30+	10.50	2,573	15,330	**0.5%**			2,676										3,263			
4.330	4	**4**	Each	Gates	2026	to 35	5	1,000.00	4,000	4,000	**0.6%**						4,416										
4.560	3	**3**	Each	Light Poles and Fixtures, Concrete	2035	to 35	14	2,200.00	6,600	6,600	**0.5%**															8,709	
4.561	4	**4**	Each	Light Poles and Fixtures, Wood	2027	to 25	6	1,800.00	7,200	7,200	**0.4%**							8,108									
4.630	1	**1**	Each	Pavilion, Wood	2044	to 25	23	5,000.00	5,000	5,000	**0.4%**																
4.650	1	**1**	Allowance	Pipes, Subsurface Sanitary Sewer, Pool House, Partial	2037	to 85+	16 to 30+	10,000.00	10,000	10,000	**1.6%**																
4.660	1	**1**	Allowance	Playground Equipment	2035	15 to 20	14	45,000.00	45,000	45,000	**3.1%**															59,377	
4.730	20,300	**2,030**	Square Yards	Pond, Sediment Removal, Partial	2036	to 30	15	19.00	38,570	385,700	**2.7%**																51,910
4.800	2	**1**	Each	Signage, Renovation, Phased	2022	15 to 20	1 to 11	5,000.00	5,000	10,000	**1.0%**		5,100										6,217				
4.820	1	**1**	Allowance	Site Furniture	2034	15 to 25	13	4,000.00	4,000	4,000	**0.3%**														5,174		
4.830	1,600	**1,600**	Square Yards	Tennis Courts, Color Coat	2023	4 to 6	2	9.50	15,200	15,200	**4.1%**			15,814						17,809						20,056	
4.840	480	**480**	Linear Feet	Tennis Courts, Fence	2042	to 25	21	42.00	20,160	20,160	**1.6%**																
4.860	1,600	**1,600**	Square Yards	Tennis Courts, Surface Replacement	2042	to 25	21	47.00	75,200	75,200	**5.9%**																
				Pool House and Shed Elements																							
5.300	1	**1**	Allowance	Exterior Renovation, Complete	2046	to 30	25	16,000.00	16,000	16,000	**1.4%**																
5.500	2	**2**	Each	Rest Rooms, Renovation	2039	to 25	18	10,000.00	20,000	20,000	**1.5%**																
5.600	8	**8**	Squares	Roof, Asphalt Shingles (Includes Gutters, Downspouts and Skylights)	2025	15 to 20	4	600.00	4,800	4,800	**0.7%**					5,196											
5.601	6	**6**	Squares	Roof, Asphalt Shingles, Storage Shed	2036	to 20	15	600.00	3,600	3,600	**0.3%**																4,845
				Pool Elements																							
6.200	7,600	**7,600**	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2029	8 to 12	8	1.50	11,400	11,400	**2.6%**									13,357							
6.300	3,500	**3,500**	Square Feet	Covers, Vinyl	2022	6 to 8	1	3.00	10,500	10,500	**2.9%**		10,710								12,548						
6.400	550	**550**	Linear Feet	Fences, Aluminum	2032	to 25	11	62.00	34,100	34,100	**2.2%**												42,399				
6.500	1	**1**	Allowance	Furniture	2024	to 4	3	3,000.00	3,000	3,000	**1.5%**				3,184				3,446				3,730				4,038
6.600	2	**1**	Allowance	Mechanical Equipment, Phased	2025	to 15	4 to 11	6,500.00	6,500	13,000	**1.8%**					7,036							8,082				
6.800	3,500	**3,500**	Square Feet	Pool Finish, Refinish	2029	to 10	8	18.00	63,000	63,000	**8.5%**									73,815							
6.801	1	**1**	Allowance	Pool Finish, Tile	2039	15 to 25	18	24,000.00	24,000	24,000	**1.8%**																
6.900	3,500	**3,500**	Square Feet	Structure and Deck, Total Replacement	2046	to 60	25	150.00	525,000	525,000	**44.7%**																
		1	Allowance	2021 Reserve Study (Remaining Payment)	2021	N/A	0	1,550	1,550	1,550	**0.1%**	1,550															
				Anticipated Expenditures, By Year ($1,927,431 over 30 years)								1,550	15,810	63,357	3,184	12,232	4,416	11,627	3,446	104,981	12,548	13,561	60,428	3,263	5,174	92,265	60,793

RESERVE EXPENDITURES

Meadowlake Farms Homes Association
Yorktown, Virginia

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2021)	Per Phase (2021)	Total (2021)	Percentage of Future Expenditures	16 2037	17 2038	18 2039	19 2040	20 2041	21 2042	22 2043	23 2044	24 2045	25 2046	26 2047	27 2048	28 2049	29 2050	30 2051
				Property Site Elements																						
4.020	1,250	**1,250**	Square Yards	Asphalt Pavement, Crack Repair, Patch, Seal Coat, and Striping	2027	3 to 5	6	2.50	3,125	3,125	**1.4%**			4,463								5,229				5,661
4.045	1,250	**1,250**	Square Yards	Asphalt Pavement, Total Replacement	2023	15 to 20	2	34.50	43,125	43,125	**5.8%**							66,670								
4.100	1	**1**	Each	Baseball Diamond, Backstop	2031	to 25	10	8,000.00	8,000	8,000	**0.5%**															
4.140	1,460	**245**	Square Feet	Concrete Sidewalks, Partial	2023	to 65	2 to 30+	10.50	2,573	15,330	**0.5%**							3,977								
4.330	4	**4**	Each	Gates	2026	to 35	5	1,000.00	4,000	4,000	**0.6%**										6,562					
4.560	3	**3**	Each	Light Poles and Fixtures, Concrete	2035	to 35	14	2,200.00	6,600	6,600	**0.5%**															
4.561	4	**4**	Each	Light Poles and Fixtures, Wood	2027	to 25	6	1,800.00	7,200	7,200	**0.4%**															
4.630	1	**1**	Each	Pavilion, Wood	2044	to 25	23	5,000.00	5,000	5,000	**0.4%**								7,884							
4.650	1	**1**	Allowance	Pipes, Subsurface Sanitary Sewer, Pool House, Partial	2037	to 85+	16 to 30+	10,000.00	10,000	10,000	**1.6%**	13,728										16,734				
4.660	1	**1**	Allowance	Playground Equipment	2035	15 to 20	14	45,000.00	45,000	45,000	**3.1%**															
4.730	20,300	**2,030**	Square Yards	Pond, Sediment Removal, Partial	2036	to 30	15	19.00	38,570	385,700	**2.7%**															
4.800	2	**1**	Each	Signage, Renovation, Phased	2022	15 to 20	1 to 11	5,000.00	5,000	10,000	**1.0%**						7,578									
4.820	1	**1**	Allowance	Site Furniture	2034	15 to 25	13	4,000.00	4,000	4,000	**0.3%**															
4.830	1,600	**1,600**	Square Yards	Tennis Courts, Color Coat	2023	4 to 6	2	9.50	15,200	15,200	**4.1%**											25,436				
4.840	480	**480**	Linear Feet	Tennis Courts, Fence	2042	to 25	21	42.00	20,160	20,160	**1.6%**						30,556									
4.860	1,600	**1,600**	Square Yards	Tennis Courts, Surface Replacement	2042	to 25	21	47.00	75,200	75,200	**5.9%**						113,978									
				Pool House and Shed Elements																						
5.300	1	**1**	Allowance	Exterior Renovation, Complete	2046	to 30	25	16,000.00	16,000	16,000	**1.4%**										26,250					
5.500	2	**2**	Each	Rest Rooms, Renovation	2039	to 25	18	10,000.00	20,000	20,000	**1.5%**			28,565												
5.600	8	**8**	Squares	Roof, Asphalt Shingles (Includes Gutters, Downspouts and Skylights)	2025	15 to 20	4	600.00	4,800	4,800	**0.7%**									7,720						
5.601	6	**6**	Squares	Roof, Asphalt Shingles, Storage Shed	2036	to 20	15	600.00	3,600	3,600	**0.3%**															
				Pool Elements																						
6.200	7,600	**7,600**	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2029	8 to 12	8	1.50	11,400	11,400	**2.6%**			16,282										19,848		
6.300	3,500	**3,500**	Square Feet	Covers, Vinyl	2022	6 to 8	1	3.00	10,500	10,500	**2.9%**		14,703								17,226					
6.400	550	**550**	Linear Feet	Fences, Aluminum	2032	to 25	11	62.00	34,100	34,100	**2.2%**															
6.500	1	**1**	Allowance	Furniture	2024	to 4	3	3,000.00	3,000	3,000	**1.5%**				4,370				4,731				5,121			
6.600	2	**1**	Allowance	Mechanical Equipment, Phased	2025	to 15	4 to 11	6,500.00	6,500	13,000	**1.8%**			9,284							10,664					
6.800	3,500	**3,500**	Square Feet	Pool Finish, Refinish	2029	to 10	8	18.00	63,000	63,000	**8.5%**			89,980												
6.801	1	**1**	Allowance	Pool Finish, Tile	2039	15 to 25	18	24,000.00	24,000	24,000	**1.8%**			34,278												
6.900	3,500	**3,500**	Square Feet	Structure and Deck, Total Replacement	2046	to 60	25	150.00	525,000	525,000	**44.7%**										861,318					
		1	Allowance	2021 Reserve Study (Remaining Payment)	2021	N/A	0	1,550	1,550	1,550	**0.1%**															
				Anticipated Expenditures, By Year ($1,927,431 over 30 years)								13,728	14,703	182,852	4,370	0	152,112	70,647	12,615	7,720	922,020	47,399	5,121	19,848	0	5,661

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS
Meadowlake Farms
Homes Association
Yorktown, Virginia

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Reserves at Beginning of Year	*(Note 1)*	271,628	301,794	329,514	313,053	360,422	400,840	451,216	496,596	552,555	508,048	556,939	607,182	612,276	676,560	741,848	721,712
Total Recommended Reserve Contributions	*(Note 2)*	**31,000**	**34,200**	**37,400**	**40,600**	**41,400**	**42,200**	**43,000**	**43,900**	**44,800**	**45,700**	**46,600**	**47,500**	**48,500**	**49,500**	**50,500**	**51,500**
Estimated Interest Earned, During Year	*(Note 3)*	716	9,330	9,496	9,953	11,250	12,592	14,007	15,505	15,674	15,739	17,204	18,022	19,047	20,962	21,629	21,512
Anticipated Expenditures, By Year		(1,550)	(15,810)	(63,357)	(3,184)	(12,232)	(4,416)	(11,627)	(3,446)	(104,981)	(12,548)	(13,561)	(60,428)	(3,263)	(5,174)	(92,265)	(60,793)
Anticipated Reserves at Year End		$301,794	$329,514	$313,053	$360,422	$400,840	$451,216	$496,596	$552,555	$508,048	$556,939	$607,182	$612,276	$676,560	$741,848	$721,712	$733,931

(continued)

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

	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
Reserves at Beginning of Year	733,931	795,303	858,643	754,328	829,159	911,787	843,617	857,307	931,528	1,014,162	172,479	194,605	261,626	317,030	395,561
Total Recommended Reserve Contributions	**52,500**	**53,600**	**54,700**	**55,800**	**56,900**	**58,000**	**59,200**	**60,400**	**61,600**	**62,800**	**64,100**	**65,400**	**66,700**	**68,000**	**69,400**
Estimated Interest Earned, During Year	22,600	24,443	23,837	23,401	25,728	25,942	25,137	26,436	28,754	17,537	5,425	6,742	8,552	10,531	12,823
Anticipated Expenditures, By Year	(13,728)	(14,703)	(182,852)	(4,370)	0	(152,112)	(70,647)	(12,615)	(7,720)	(922,020)	(47,399)	(5,121)	(19,848)	0	(5,661)
Anticipated Reserves at Year End	$795,303	$858,643	$754,328	$829,159	$911,787	$843,617	$857,307	$931,528	$1,014,162	$172,479 *(NOTE 5)*	$194,605	$261,626	$317,030	$395,561	$472,123 *(NOTE 4)*

Explanatory Notes:

1) Year 2021 starting reserves are as of January 1, 2021; FY2021 starts January 1, 2021 and ends December 31, 2021.
2) Reserve Contributions for 2021 are budgeted; 2022 is the first year of recommended contributions.
3) **3.0%** is the estimated annual rate of return on invested reserves; 2021 is a partial year of interest earned.
4) Accumulated year 2051 ending reserves consider the age, size, overall condition and complexity of the property.
5) Threshold Funding Year (reserve balance at critical point).

FIVE-YEAR OUTLOOK

**Meadowlake Farms
Homes Association**
Yorktown, Virginia

Line Item	Reserve Component Inventory	RUL = 0 FY2021	1 2022	2 2023	3 2024	4 2025	5 2026
	Property Site Elements						
4.045	Asphalt Pavement, Total Replacement			44,867			
4.140	Concrete Sidewalks, Partial			2,676			
4.330	Gates						4,416
4.800	Signage, Renovation, Phased		5,100				
4.830	Tennis Courts, Color Coat			15,814			
	Pool House and Shed Elements						
5.600	Roof, Asphalt Shingles (Includes Gutters, Downspouts and Skylights)					5,196	
	Pool Elements						
6.300	Covers, Vinyl		10,710				
6.500	Furniture				3,184		
6.600	Mechanical Equipment, Phased					7,036	
	2021 Reserve Study (Remaining Payment)	1,550					
	Anticipated Expenditures, By Year ($1,927,431 over 30 years)	1,550	15,810	63,357	3,184	12,232	4,416

4. RESERVE COMPONENT DETAIL

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

Property Site Elements

Asphalt Pavement, Crack Repair, Patch, Seal Coat, and Striping

Line Item: 4.020

Quantity: Approximately 1,250 square yards

History: Last conducted in 2015

Condition: Fair overall

Useful Life: Three- to five-years

Component Detail Notes: Proposals for seal coat applications should include crack repairs and patching. The contractor should only apply seal coat applications after repairs are completed. A seal coat does not bridge or close cracks; therefore, unrepaired cracks render the seal coat applications useless.

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost is based on information provided by the Association and includes an allowance for crack repairs and patching of up to two percent (2%) of the pavement.

Asphalt Pavement, Repaving

Line Items: 4.045

Quantity: Approximately 1,250 square yards

History: Reported as original

Condition: Fair overall with systematic cracks and water seepage evident

Overview

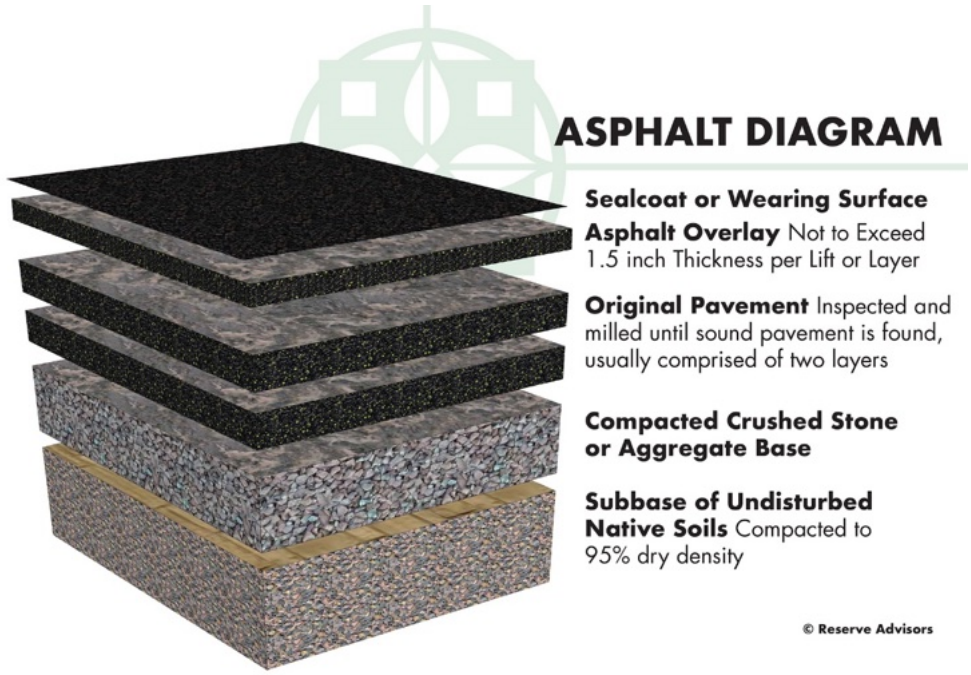
Cracks

Cracks and water seepage

Curb crack

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

Component Detail Notes: The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish. The following diagram depicts the typical components although it may not reflect the actual configuration at Meadowlake Farms:



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 total replacement method of repaving at Meadowlake Farms.

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 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. Our cost includes partial replacements of the concrete curbs.

Baseball Diamond, Backstop

Line Item: 4.100

Quantity: One backstop

History: The fencing and a few poles were replaced in 2014.

Condition: Fair overall with isolated rust evident

Overview

Pole rust

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.

Concrete Sidewalks

Line Item: 4.140

Quantity: Approximately 1,460 square feet

Condition: Fair overall with isolated cracks and trip hazards evident

Sidewalk crack

Trip hazard

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 735 square feet of concrete sidewalks, or fifty percent (50%) of the total, will require replacement during the next 30 years.

Gates

Line Items: 4.330

Quantity: Four gates

History: The gates are original and were painted in 2014.

Condition: Fair overall with isolated paint deterioration and rust evident

Overview

Finish deterioration

Rust and finish deterioration

Useful Life: Up to 35 years for the gates

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:

- Semi-annually:
    - Ensure gates operate freely
    - Inspect for any wear, rust and loose fasteners
    - Inspect and lubricate hinges as necessary

Priority/Criticality: Per Board discretion

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

Light Poles and Fixtures

Line Items: 4.560 and 4.561

Quantity: The Association maintains three concrete poles with light fixtures at the parking lot and four wood poles with light fixtures at the pool

History: The light fixtures were replaced atop the concrete poles in 2015. The remaining elements are at an unknown age.

Condition: Fair overall with isolated concrete and paint finish deterioration

Typical concrete light fixture

Concrete deterioration

Typical wood light fixture

Pole finish deterioration

Useful Life: Up to 25 years

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

- As-needed:

- Inspect and repair broken or dislodged fixtures, and leaning or damaged poles
- Replaced burned out bulbs as needed

Priority/Criticality: Per Board discretion

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

Pavilion, Wood

Line Item: 4.360

Quantity: One each

History: The pavilion was installed in 2019

Condition: Good overall with isolated finish deterioration

Overview

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:

- Replacement of the metal roof
- Replacement of deteriorated wood components

Pipes, Subsurface Sanitary Sewer

Line Item: 4.650

Condition: Reported satisfactory

Useful Life: Up to and likely beyond 85 years

Component Detail Notes: The Association maintains the lateral subsurface water supply and sanitary sewer pipes. The exact amounts and locations of the subsurface sanitary sewer 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, Meadowlake Farms 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 Item: 4.660

Quantity: The Association maintains two playground areas. One at Susan Newton Lane and one at the pool house. Playground equipment includes the following elements:

- Swing sets
- Playsets
- Surface, Wood Mulch
- Border, Wood

History: The playgrounds were replaced in 2015.

Condition: Good to fair overall

Pool house playground overview

Wood deterioration at pool house

Susan Newton Lane playground overview

Swing set at Susan Newton Lane

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. Our cost includes an allowance for replacement of the safety surface and border.

Pond, Sediment Removal

Line Item: 4.730

Quantity: Approximately 20,300 square yards of water surface area

Condition: The pond is in good health and there was minimal organic accumulation at the time of our inspection. A pond study by students from *Christopher Newport University* reports the pond is in good overall health with limited sediment build-up.

Pond overview

Pond overview

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

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

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

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

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. For reserve budgeting purposes, we estimate the need to remove an average depth of one yard from approximately twenty-five percent (25%) of the surface area. However, the actual volume of material to remove may vary dependent upon an invasive analysis at the time of removal. A visual inspection of a body of water cannot reveal the amount of accumulated silt. This is especially true on larger bodies of water. It is therefore inaccurate to assume an entire body of water will require sediment removal. It is more cost effective to spot remove in areas of intense silt accumulation as noted through bathymetric surveys. The amount or depth of silt is determined through prodding into the silt until a relatively solid base is found or through bathymetric surveys. A bathymetric survey establishes a base of data about the depth of the body of water over many locations against which the data of future surveys is compared. These invasive procedures are beyond the scope of a Reserve Study and require multiple visits to the site. We recommend Meadowlake Farms contract with a local engineer for periodic bathymetric surveys. Future updates of the Reserve Study can incorporate future anticipated expenditures based on the results of the bathymetric surveys.

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

Signage

Line Item: 4.800

Quantity: Two property identification signs: one wood sign and one metal sign. The signage includes the following elements:

- Light fixtures
- Signage

History: The lights were replaced in 2016 and the Association reports they plan to replace the metal sign with a wood sign in 2022.

Condition: Fair overall with systematic finish deterioration at the metal sign

Wood sign overview

Metal sign (note fade and deterioration)

Typical light

Metal 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 replacement of the signs and lights.

Site Furniture

Line Item: 4.820

Quantity: The Association maintains five Benches at the pond and the playgrounds

History: The benches were renovated in 2020.

Condition: Good to fair overall with no deterioration evident

Typical bench

Typical bench

Useful Life: 15- to 25-years

Priority/Criticality: Per Board discretion

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

Tennis Courts, Color Coat

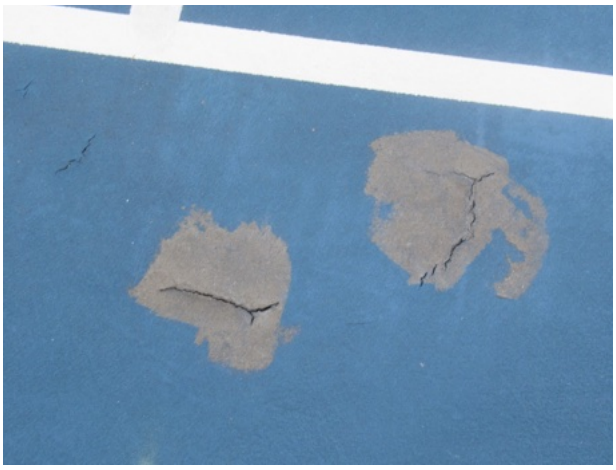
Line Item: 4.830

Quantity: 1,600 square yards comprising two tennis courts

History: The tennis court was resurfaced in 2017.

Condition: Good overall

Paint deterioration



Cracks and paint deterioration

Useful Life: Four- to six-years

Component Detail 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.

Priority/Criticality: Not recommended to defer

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

Tennis Courts, Fence

Line Item: 4.840

Quantity: 480 linear feet

History: Replaced in 2017

Condition: Good to fair overall with isolated rust evident

Overview

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. Our cost is based on information provided by the Association.

Tennis Courts, Surface

Line Item: 4.860

Quantity: 1,600 square yards of asphalt comprising one tennis court

History: The court was resurfaced in 2017.

Condition: Good to fair overall with isolated cracks and deterioration evident

Overview

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 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. Our cost is based on information provided by the Association.

Pool House and Shed Elements

Storage shed overview

Pool house overview

Exterior Renovations

Line Item: 5.300

Quantity: The building exteriors comprise:

- 2,220 square feet of siding
- 185 square feet of windows and doors

History: The storage shed was installed in 2016 and the exterior of the pool house was renovated in 2016.

Condition: Good to fair overall condition with isolated siding damage evident

Pool house siding damage

Typical gutters and downspouts

Typical shed siding

Typical shed door

Useful Life: Up to 30 years

Priority/Criticality: Per Board discretion

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

- Replacement of the vinyl siding
- Replacement of the windows and doors

Rest Rooms

Line Item: 5.500

Quantity: Two common located at the pool house. The rest room components include:

- Tile floor coverings
- Paint finishes
- Light fixtures

- Plumbing fixtures

History: The bathrooms were renovated in 2019

Condition: Good to fair overall

Sink overview

Typical restroom

Useful Life: Renovation 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.

Roof, Asphalt Shingles

Line Items: 5.600 and 5.601

Quantity: Approximately eight *squares* [1] at the pool house and six squares at the storage shed.

History: The pool house roof was replaced in 2005. The storage shed roof was installed in 2016.

Condition: The pool house roof is in fair overall condition and the storage shed roof is in good overall condition. Management and the Board do not report any leaks.

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

Pool house roof overview (note skylights)

Typical shingles

Useful Life: 15- to 20-years

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

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

Pool Elements

Main pool overview

Wading pool overview

Concrete Deck

Line Item: 6.200

Quantity: 7,600 square feet

History: Repairs were made in 2019

Condition: Good to fair condition with isolated cracks evident

Crack

Crack

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

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

- Semi-annually:
  - Inspect and repair large cracks, trip hazards, and possible safety hazards
  - Inspect and repair pool coping for cracks, settlement, heaves or sealant deterioration
  - 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
- Caulk replacement

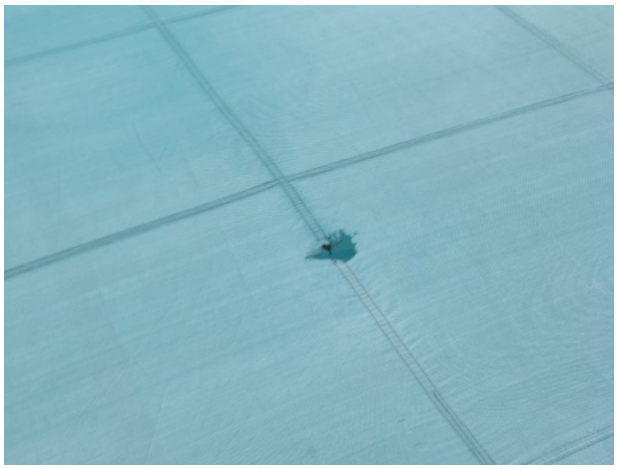
Covers, Vinyl

Line Item: 6.300

Quantity: 3,500 square feet

History: The wading pool cover was replaced and the main pool cover was patched in 2017

Condition: Fair overall condition with isolated holes evident



Main pool cover hole

Wading pool cover overview

Useful Life: Six- to eight-years

Priority/Criticality: Per Board discretion

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

Fence, Aluminum

Line Item: 6.400

Quantity: 550 linear feet

History: Replaced in 2007

Condition: Fair overall condition with no significant deterioration evident

Fence overview

Typical pool fence

Useful Life: Up to 25 years

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

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

Priority/Criticality: Not recommended to defer

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

Furniture

Line Item: 6.500

Quantity: The pool furniture includes the following:

- Chairs
- Lounges
- Tables
- Umbrellas
- Grill
- Lifeguard station

History: Replaced a lifeguard chair, shade umbrellas, pool chairs, and a grill 2017

Condition: Good to fair overall

Furniture overview

Grill

Useful Life: Up to four years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost and timing is based on information provided by the Association. 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
- Controls
- Filters
- Pumps

History: The age of mechanical equipment varies. One pump motor was replaced in 2019.

Condition: Reported satisfactory

Pool equipment overview

Useful Life: Up to 15 years

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

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Failure of the pool mechanical equipment as a single event is unlikely. Therefore, we include replacement of up to fifty percent (50%) of the equipment per event. We consider interim replacement of motors and minor repairs as normal maintenance.

Pool Finish and Tile

Line Items: 6.800 and 6.801

Quantity: 3,500 square feet of finish based on the horizontal surface area

History: The pool was resurfaced in 2019.

Condition: Reported in good condition. We were unable to inspect the pool due to the pool covers.

Useful Life: Up to 10 years for the plaster and 15- to 25- years for the tile and coping

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. Our cost for refinishing is based on information provided by the Association. Removal and replacement provides the opportunity to inspect the pool structure and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structure, we recommend the Association budget for the following:

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

Structure and Deck

Line Item: 6.900

Quantity: 3,500 square feet of horizontal surface area

History: Original

Conditions: Reported in operational condition.

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 Meadowlake Farms plan to replace the following components:

- Concrete deck
- Pool structure
- 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

Line Item: Last

Component Detail Notes: Meadowlake Farms will expend $1,550 for the remaining payment of this reserve study in 2021.

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.

Meadowlake Farms can fund capital repairs and replacements in any combination of the following:

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

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

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

- The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan
- Local[2] costs of material, equipment and labor
- Current and future costs of replacement for the Reserve Components
- Costs of demolition as part of the cost of replacement
- Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in Yorktown, Virginia at an annual inflation rate[3]. 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 Meadowlake Farms 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 the 2,600,000-square foot 98-story Trump International Hotel and Tower in Chicago. 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.

REID M. NELSON
Engineer

CURRENT CLIENT SERVICES

Reid M. Nelson is a Mechanical Engineer and Advisor for ***Reserve Advisors, LLC.*** Mr. Nelson is responsible for the inspection and analysis of the condition of clients' property, recommending engineering solutions to prolong the lives of the components, forecasting capital expenditures for the repair and/or replacement of the property components, and preparation of 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 midrise buildings, condominiums, townhomes and homeowner associations.

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

Adam's Place Townhome Condominium Association is a 43-unit community located in downtown Chicago, Illinois. The buildings are adorned with brick, vinyl, and EIFS. The Association maintains the flat roofs and steel catwalks that accent the rear elevations of these three-story buildings.

Edgewater Lofts Owners' Association is a community constructed in three phases on the shores of Lake Michigan in Traverse City, Michigan. Fiber cement siding and composite balconies highlight the front and rear elevations. Residents enjoy a community area that features a fire pit.

Ghent on the Square Condominium Association is a community in Norfolk, Virginia built in 1989. The three-story brick buildings feature concrete balconies accented with metal staircases. Residents enjoy various site elements such a clubhouse, pool, tennis court, and a playground.

Hillcrest Community Association, Inc. is a homeowners association located in Prospect, Kentucky consisting of 488 homes. The sprawling property features a pool, playground, and tennis courts near the clubhouse to provide residents various amenities for their leisure.

Park Place of Geneva Townhome Owners Association, Inc. is a small community of six buildings and 30 units. The three-story buildings are adorned with brick, fiber cement siding and balconies with waterproof membranes to create a variety of maintenance and replacement needs. Residents enjoy a central courtyard lined with brick pavers and a fire pit.

Stonelake at River's Bend Homeowners Association, Inc. is a development in South Lebanon, Ohio constructed from 2007 to 2013. The Association maintains a clubhouse and various site elements including a pond, asphalt walking paths, and a playground.

Weston Place Homeowners Association, Inc. is located in Carmel, Indiana. The Association maintains three ponds, several fences, and brick entrance monuments. The property includes multiple sport courts and a pool for the community to enjoy.

PRIOR RELEVANT EXPERIENCE

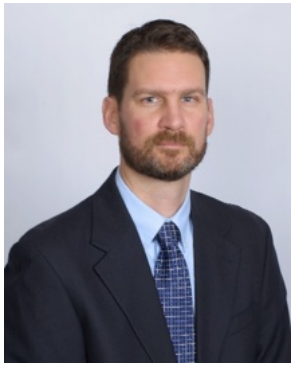
Before joining Reserve Advisors, Mr. Nelson attended Montana Technological University where he attained his Bachelor of Science degree in Mechanical Engineering with Minors in Business Administration and Mathematics.

EDUCATION

Montana Technological University– B.S. Mechanical Engineering

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

CURRENT CLIENT SERVICES



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

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

Brownsville Winter Haven Located in Brownsville, Texas, this unique homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

Rosemont Condominiums This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.

Stillwater Homeowners Association Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.

Birchfield Community Services Association This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.

Oakridge Manor Condominium Association Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.

Memorial Lofts Homeowners Association This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

PRIOR RELEVANT EXPERIENCE

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

EDUCATION

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

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

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

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 Meadowlake Farms 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) Meadowlake Farms 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.