

# RESERVE STUDY

## Pheasant Run Association



**LaGrange, Ohio**

**August 8, 2019**



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Long-term thinking. Everyday commitment.

Pheasant Run Association  
LaGrange, Ohio

Dear Board of Directors of Pheasant Run Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of Pheasant Run Association in LaGrange, Ohio and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, August 8, 2019.

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 Pheasant Run 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 2, 2019 by

*Reserve Advisors, Inc.*

Visual Inspection and Report by: Aime V. Mbakop

Review by: Alan M. Ebert, RS, PRA<sup>2</sup>, Director of Quality Assurance



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

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



Long-term thinking. Everyday commitment.

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# 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Pheasant Run Association (Pheasant Run)

**Location:** LaGrange, Ohio

**Reference:** 151101

**Property Basics:** Pheasant Run Association is a planned unit development which is responsible for the common elements shared by 533 single family homes. The community was built from approximately 1972 to 2005. The office building was built in 1972, the maintenance building in the late 1970's and the sewage building in the late 1990's.

**Reserve Components Identified:** 44 Reserve Components.

**Inspection Date:** August 8, 2019. We conducted the original inspection on February 24, 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 these threshold funding years in 2027 and 2035 due to replacement of asphalt pavement and sediment removal, respectively..

**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
- 2.2% anticipated annual rate of return on invested reserves
- 2.9% 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.

**Cash Status of Reserve Fund:**

- \$296,641 as of August 31, 2019
- 2019 budgeted Reserve Contributions of \$76,752

**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:

- Paint finish application at the plywood siding
- Crack repairs and patching at the Phase 2 and 3 pavement
- Total replacement at the Phase 1 and 5 pavement
- Repairs at the concrete streets
- Replacement of the playground equipment

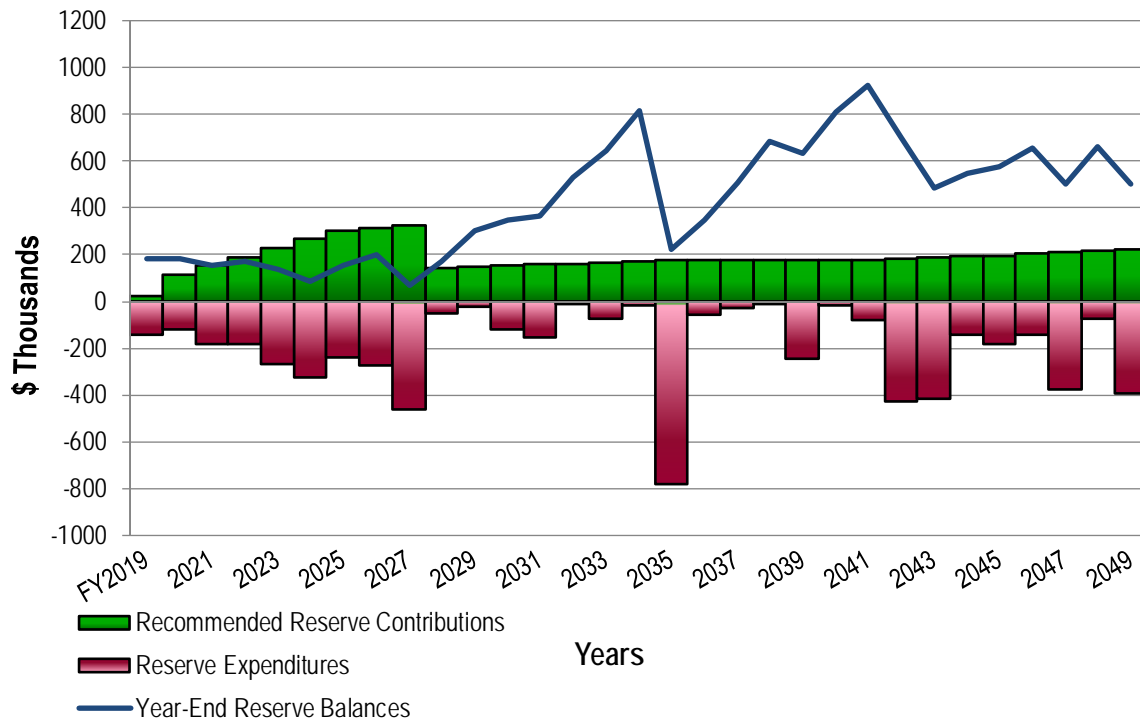
**Recommended Reserve Funding:** We recommend the following in order to achieve a stable and equitable Funding Plan:

- Phased increases of approximately \$38,300 from 2020 through 2025
- Inflationary increases from 2026 through 2027
- Decrease to \$146,000 by 2028 due to fully funding for replacement of asphalt pavement
- Inflationary increases from 2029 through 2035
- Stable contributions of \$177,200 from 2036 through 2041

- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis
- Initial adjustment in Reserve Contributions of \$38,348 represents an average monthly increase of \$6.00 per homeowner and about a six percent (6.3%) adjustment in the 2019 total Operating Budget of \$606,600.

**Pheasant Run**  
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2020	115,100	180,831	2030	154,600	350,251	2040	177,200	807,510
2021	153,400	155,603	2031	159,100	367,101	2041	177,200	925,280
2022	191,700	172,239	2032	163,700	532,057	2042	182,300	701,191
2023	230,000	139,706	2033	168,400	642,926	2043	187,600	486,310
2024	268,300	86,287	2034	173,300	814,220	2044	193,000	549,101
2025	306,600	156,164	2035	177,200	221,397	2045	198,600	578,371
2026	315,500	201,551	2036	177,200	348,907	2046	204,400	654,675
2027	324,600	70,190	2037	177,200	507,093	2047	210,300	504,373
2028	146,000	172,135	2038	177,200	685,508	2048	216,400	659,248
2029	150,200	304,989	2039	177,200	632,650	2049	222,700	503,652





## 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

### **Pheasant Run Association**

### **LaGrange, Ohio**

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, August 8, 2019. We conducted the original inspection on February 24, 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:

- Pheasant Run 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 reserve funding at this time.

- Electrical Systems, Common
- Foundations, Common Buildings
- Pipes, Interior Building, Water and Sewer, Common Buildings
- Structural Frames, Common Buildings

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 \$5,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Concrete Sidewalks, Near Common Buildings
- Dam, Inspections
- Fences, Wood, Split Rail, Repairs
- Flagpole, Office Building Parking Lot
- Furnaces, Maintenance and Sewage Buildings
- Golf Cart
- Handicap Ramp, Office Building
- Horseshoe Pits
- Landscape
- Light Fixtures, Exterior, Common Buildings
- Mailbox Stations, Wood (At the request of Management and the Board, we consider the replacement of the wood mailbox stations operating budget expenses)
- Maintenance Equipment (Including Plows, Mowers, Trailers and Tools)
- Maintenance Vehicles, Tractor and Forklift (At the request of Management and the Board, we consider the tractor and forklift maintenance and replacement as operating budget expenses.)
- Pavilion, Soffit
- Office Building, Appliances
- Office Building, Floor Coverings, Vinyl, Interim

- Office Building, Furnishings
- Office Building, Garage Door
- Office Building, Masonry and Chimney Cap, Inspections and Repairs
- Office Building, Office Equipment
- Office Building, Paint Finishes, Interior
- Office Building, Water Heater
- Paint Finishes, Touch Up
- Ponds, Annual Maintenance and Treatments
- Streams and Ditches, Maintenance and Regrading
- Signage, Entrance Monuments
- Signage, Street and Traffic
- Site Furniture
- Volleyball Court, Standards
- Window, Drive-thru, Office Building
- Other Repairs normally funded through the Operating Budget

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

- Homes and Lots
- Sidewalks, Lots

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

- Light Poles and Fixtures, Streets (Utility Company)
- Street Systems at Chuckar Court, East Parkway, and Meadow Lane (Township)

### **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
- 2019 local cost of replacement
  - Per unit
  - Per phase
  - Replacement of total quantity
- Total future costs of replacement 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

**Pheasant Run  
Association  
LaGrange, Ohio**

**Explanatory Notes:**

- 1) **2.9%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) FY2019 is Fiscal Year beginning January 1, 2019 and ending December 31, 2019.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034		
						Useful	Remaining	Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)																		
<b>Office, Maintenance and Sewage Buildings Exterior Building Elements</b>																													
1.200	4	4	Each	Doors, Garage	2027	to 25	8	3,700.00	14,800	14,800	18,603																	18,603	
1.240	660	660	Linear Feet	Gutters and Downspouts, Aluminum	2023	15 to 20	4	11.00	7,260	7,260	22,558				8,140														
1.280	90	90	Squares	Roofs, Asphalt Shingles, Office and Maintenance Buildings	2023	15 to 20	4	430.00	38,700	38,700	120,244				43,388														
1.460	1	1	Allowance	Roof and Siding, Metal, Sewage Building, Renovation	2030	to 35	11	46,000.00	46,000	46,000	62,998																62,998		
1.755	1	1	Allowance	Walls, Fiber Cement Siding, Paint Finishes	2036	8 to 10	17	10,500.00	10,500	10,500	39,791																		
1.760	1	1	Allowance	Walls, Plywood Siding, Paint Finishes	2021	4 to 6	2	10,500.00	10,500	10,500	11,118		11,118																
1.945	4,400	4,400	Square Feet	Walls, Plywood Siding, Replacement (Replace with Fiber Cement)	2026	to 35	7	7.50	33,000	33,000	40,311																40,311		
1.980	210	210	Square Feet	Windows and Doors	2026	to 45	7	42.00	8,820	8,820	10,774																10,774		
<b>Office Interior Building Elements</b>																													
2.100	2	2	Each	Air Handling and Condensing Units, Split Systems	2023	15 to 20	4	4,000.00	8,000	8,000	24,000				9,000														
2.200	230	230	Square Yards	Floor Coverings, Carpet	2023	8 to 12	4	53.00	12,190	12,190	56,065				13,667													18,189	
2.240	85	85	Square Yards	Floor Coverings, Tile	2023	to 30	4	71.00	6,035	6,035	6,766				6,766														
2.519	1	1	Allowance	Kitchen, Renovation	2028	to 25	9	7,000.00	7,000	7,000	9,054																9,054		
2.560	40	40	Each	Light Fixtures (Incl. Emergency and Exit Fixtures)	2024	to 20	5	170.00	6,800	6,800	21,741					7,845													
2.900	1	1	Allowance	Rest Rooms, Fixtures and Partitions	2023	to 25	4	8,500.00	8,500	8,500	29,004				9,530														
2.955	1	1	Allowance	Security System (Incl. Maintenance Building)	2026	10 to 15	7	7,000.00	7,000	7,000	21,500																8,500		
<b>Property Site Elements</b>																													
4.020	7,800	7,800	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 1	2023	3 to 5	4	0.70	5,460	5,460	38,977				6,121												6,863	7,694	
4.021	16,870	16,870	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 2	2021	3 to 5	2	0.70	11,809	11,809	154,438			12,504			14,019										15,717	17,621	
4.022	9,760	9,760	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 3 (Incl. Basketball Court)	2022	3 to 5	3	0.70	6,832	6,832	47,398				7,444												9,357	10,490	
4.023	8,400	8,400	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 4	2028	3 to 5	9	0.70	5,880	5,880	61,898															7,605	8,527		
4.024	7,320	7,320	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 5	2025	3 to 5	6	0.70	5,124	5,124	29,121															6,820	7,646		
4.040	7,800	3,900	Square Yards	Asphalt Pavement, Mill and Overlay, Phase 1, Phased	2044	20 to 30	25 to 26	14.50	56,550	113,100	234,477																		
4.042	9,760	9,760	Square Yards	Asphalt Pavement, Mill and Overlay, Phase 3 (Incl. Basketball Court)	2042	20 to 30	23	14.50	141,520	141,520	273,132																		
4.043	8,400	8,400	Square Yards	Asphalt Pavement, Mill and Overlay, Phase 4	2049	20 to 30	30	15.00	126,000	126,000	297,052																		
4.044	7,320	3,660	Square Yards	Asphalt Pavement, Mill and Overlay, Phase 5, Phased	2046	20 to 30	27 to 28	15.00	54,900	109,800	241,029																		
4.045	7,800	3,900	Square Yards	Asphalt Pavement, Total Replacement, Phase 1, Phased (2019 is Planned)	2019	20 to 30	0 to 1	30.00	117,000	234,000	237,393	117,000	120,393																
4.046	16,870	5,623	Square Yards	Asphalt Pavement, Total Replacement, Phase 2, Phased	2025	20 to 30	6 to 8	30.00	168,700	506,100	618,390																200,266	206,074	212,050
4.048	8,400	8,400	Square Yards	Asphalt Pavement, Total Replacement, Phase 4	2024	20 to 30	5	30.50	256,200	256,200	295,567																	295,567	
4.049	7,320	3,660	Square Yards	Asphalt Pavement, Total Replacement, Phase 5, Phased	2021	20 to 30	2 to 3	30.50	111,630	223,260	239,824				118,198	121,626													
4.095	1	1	Allowance	Bridge, Wood, Near Playground	2022	to 25	3	8,500.00	8,500	8,500	28,187				9,261														
4.100	6	6	Each	Catch Basins, Asphalt Streets, Inspections and Capital Repairs, Phase 1 (2019 is Planned)	2019	15 to 20	0	800.00	4,800	4,800	23,486	4,800																7,370	
4.101	5	5	Each	Catch Basins, Asphalt Streets, Inspections and Capital Repairs, Phase 2	2025	15 to 20	6	800.00	4,000	4,000	12,039																4,748		
4.102	4	4	Each	Catch Basins, Asphalt Streets, Inspections and Capital Repairs, Phase 3	2047	15 to 20	28	800.00	3,200	3,200	7,125																		
4.105	56	8	Each	Catch Basins, Concrete Streets, Inspections and Capital Repairs, Phased	2023	15 to 20	4 to 28	800.00	6,400	44,800	72,648					7,175											8,045	9,019	
4.180	157,700	7,885	Square Feet	Concrete Streets, Partial	2023	to 55	4 to 30+	12.00	94,620	1,892,400	1,074,047					106,083											118,934	133,342	
4.286	2,380	2,380	Linear Feet	Fences, Wood, Split Rail	2027	to 25	8	24.00	57,120	57,120	71,798																	71,798	

## RESERVE EXPENDITURES

**Pheasant Run  
Association  
LaGrange, Ohio**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049		
						Useful	Remaining	Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)																	
<b>Office, Maintenance and Sewage Buildings Exterior Building Elements</b>																												
1.200	4	4	Each	Doors, Garage	2027	to 25	8	3,700.00	14,800	14,800	18,603																	
1.240	660	660	Linear Feet	Gutters and Downspouts, Aluminum	2023	15 to 20	4	11.00	7,260	7,260	22,558															14,418		
1.280	90	90	Squares	Roofs, Asphalt Shingles, Office and Maintenance Buildings	2023	15 to 20	4	430.00	38,700	38,700	120,244															76,856		
1.460	1	1	Allowance	Roof and Siding, Metal, Sewage Building, Renovation	2030	to 35	11	46,000.00	46,000	46,000	62,998																	
1.755	1	1	Allowance	Walls, Fiber Cement Siding, Paint Finishes	2036	8 to 10	17	10,500.00	10,500	10,500	39,791		17,071													22,720		
1.760	1	1	Allowance	Walls, Plywood Siding, Paint Finishes	2021	4 to 6	2	10,500.00	10,500	10,500	11,118																	
1.945	4,400	4,400	Square Feet	Walls, Plywood Siding, Replacement (Replace with Fiber Cement)	2026	to 35	7	7.50	33,000	33,000	40,311																	
1.980	210	210	Square Feet	Windows and Doors	2026	to 45	7	42.00	8,820	8,820	10,774																	
<b>Office Interior Building Elements</b>																												
2.100	2	2	Each	Air Handling and Condensing Units, Split Systems	2023	15 to 20	4	4,000.00	8,000	8,000	24,000							15,000										
2.200	230	230	Square Yards	Floor Coverings, Carpet	2023	8 to 12	4	53.00	12,190	12,190	56,065									24,209								
2.240	85	85	Square Yards	Floor Coverings, Tile	2023	to 30	4	71.00	6,035	6,035	6,766																	
2.519	1	1	Allowance	Kitchen, Renovation	2028	to 25	9	7,000.00	7,000	7,000	9,054																	
2.560	40	40	Each	Light Fixtures (Incl. Emergency and Exit Fixtures)	2024	to 20	5	170.00	6,800	6,800	21,741															13,896		
2.900	1	1	Allowance	Rest Rooms, Fixtures and Partitions	2023	to 25	4	8,500.00	8,500	8,500	29,004															19,474		
2.955	1	1	Allowance	Security System (Incl. Maintenance Building)	2026	10 to 15	7	7,000.00	7,000	7,000	21,500							13,000										
<b>Property Site Elements</b>																												
4.020	7,800	7,800	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 1	2023	3 to 5	4	0.70	5,460	5,460	38,977	8,627				9,672												
4.021	16,870	16,870	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 2	2021	3 to 5	2	0.70	11,809	11,809	154,438			19,756			22,149									24,832	27,840	
4.022	9,760	9,760	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 3 (Incl. Basketball Court)	2022	3 to 5	3	0.70	6,832	6,832	47,398					11,761												
4.023	8,400	8,400	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 4	2028	3 to 5	9	0.70	5,880	5,880	61,898		9,560				10,718									12,016	13,472	
4.024	7,320	7,320	Square Yards	Asphalt Pavement, Crack Repair and Patch, Phase 5	2025	3 to 5	6	0.70	5,124	5,124	29,121			8,572														
4.040	7,800	3,900	Square Yards	Asphalt Pavement, Mill and Overlay, Phase 1, Phased	2044	20 to 30	25 to 26	14.50	56,550	113,100	234,477															115,563	118,914	
4.042	9,760	9,760	Square Yards	Asphalt Pavement, Mill and Overlay, Phase 3 (Incl. Basketball Court)	2042	20 to 30	23	14.50	141,520	141,520	273,132							273,132										
4.043	8,400	8,400	Square Yards	Asphalt Pavement, Mill and Overlay, Phase 4	2049	20 to 30	30	15.00	126,000	126,000	297,052																297,052	
4.044	7,320	3,660	Square Yards	Asphalt Pavement, Mill and Overlay, Phase 5, Phased	2046	20 to 30	27 to 28	15.00	54,900	109,800	241,029																118,792	122,237
4.045	7,800	3,900	Square Yards	Asphalt Pavement, Total Replacement, Phase 1, Phased (2019 is Planned)	2019	20 to 30	0 to 1	30.00	117,000	234,000	237,393																	
4.046	16,870	5,623	Square Yards	Asphalt Pavement, Total Replacement, Phase 2, Phased	2025	20 to 30	6 to 8	30.00	168,700	506,100	618,390																	
4.048	8,400	8,400	Square Yards	Asphalt Pavement, Total Replacement, Phase 4	2024	20 to 30	5	30.50	256,200	256,200	295,567																	
4.049	7,320	3,660	Square Yards	Asphalt Pavement, Total Replacement, Phase 5, Phased	2021	20 to 30	2 to 3	30.50	111,630	223,260	239,824																	
4.095	1	1	Allowance	Bridge, Wood, Near Playground	2022	to 25	3	8,500.00	8,500	8,500	28,187															18,926		
4.100	6	6	Each	Catch Basins, Asphalt Streets, Inspections and Capital Repairs, Phase 1 (2019 is Planned)	2019	15 to 20	0	800.00	4,800	4,800	23,486																11,316	
4.101	5	5	Each	Catch Basins, Asphalt Streets, Inspections and Capital Repairs, Phase 2	2025	15 to 20	6	800.00	4,000	4,000	12,039						7,291											
4.102	4	4	Each	Catch Basins, Asphalt Streets, Inspections and Capital Repairs, Phase 3	2047	15 to 20	28	800.00	3,200	3,200	7,125															7,125		
4.105	56	8	Each	Catch Basins, Concrete Streets, Inspections and Capital Repairs, Phased	2023	15 to 20	4 to 28	800.00	6,400	44,800	72,648	10,112				11,337										12,710	14,250	
4.180	157,700	7,885	Square Feet	Concrete Streets, Partial	2023	to 55	4 to 30+	12.00	94,620	1,892,400	1,074,047	149,496				167,606										187,911	210,675	
4.286	2,380	2,380	Linear Feet	Fences, Wood, Split Rail	2027	to 25	8	24.00	57,120	57,120	71,798																	

## RESERVE EXPENDITURES

**Pheasant Run  
Association  
LaGrange, Ohio**

**Explanatory Notes:**

- 1) **2.9%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) FY2019 is Fiscal Year beginning January 1, 2019 and ending December 31, 2019.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034		
						Useful	Remaining	Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)																		
4.295	245	245	Linear Feet	Guard Rails, Metal	2030	to 35	11	58.00	14,210	14,210	19,461																	19,461	
4.600	6	6	Each	Mailbox Stations, Metal	2025	to 25	6	2,000.00	12,000	12,000	14,245						14,245												
4.650	1	1	Allowance	Pipes, Subsurface Utilities	2024	to 85+	5	18,000.00	18,000	18,000	269,881					20,766		22,625				24,651						26,859	
4.660	1	1	Allowance	Playground Equipment	2021	15 to 20	2	15,000.00	15,000	15,000	44,017		15,883																
4.710	9,040	540	Linear Feet	Ponds and Lake, Erosion Control, Partial	2021	to 10	2	43.00	23,220	388,720	190,862		24,586								30,033								
4.730	107,300	18,240	Square Yards	Ponds and Lake, Sediment Removal, Partial	2035	to 30	16	20.00	364,800	2,146,000	576,369																		
<b><u>Maintenance Vehicles</u></b>																													
5.215	1	1	Each	Mini Excavator	2039	15 to 20	20	13,500.00	13,500	13,500	23,900																		
5.300	2	2	Each	Trucks, 3/4-Ton	2023	15 to 20	4	25,000.00	50,000	50,000	155,355					56,057													
5.310	1	1	Each	Truck, 1-Ton, Dump	2022	15 to 20	3	37,000.00	37,000	37,000	111,700				40,300														
		1	Allowance	2019 Reserve Expenditures	2019	N/A	0	20,000	20,000	20,000	20,000	20,000																	
<b>Anticipated Expenditures, By Year</b>											<b>\$5,978,341</b>	141,800	120,393	182,289	178,631	265,927	324,178	239,361	274,005	458,918	46,692	22,537	116,467	150,055	8,527	70,315	17,860		

## RESERVE EXPENDITURES

**Pheasant Run  
Association  
LaGrange, Ohio**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049	
						Useful	Remaining	Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)																
4.295	245	245	Linear Feet	Guard Rails, Metal	2030	to 35	11	58.00	14,210	14,210	19,461																
4.600	6	6	Each	Mailbox Stations, Metal	2025	to 25	6	2,000.00	12,000	12,000	14,245																
4.650	1	1	Allowance	Pipes, Subsurface Utilities	2024	to 85+	5	18,000.00	18,000	18,000	269,881	29,264			31,885			34,740				37,851			41,240		
4.660	1	1	Allowance	Playground Equipment	2021	15 to 20	2	15,000.00	15,000	15,000	44,017						28,134										
4.710	9,040	540	Linear Feet	Ponds and Lake, Erosion Control, Partial	2021	to 10	2	43.00	23,220	388,720	190,862	36,687						44,814								54,742	
4.730	107,300	18,240	Square Yards	Ponds and Lake, Sediment Removal, Partial	2035	to 30	16	20.00	364,800	2,146,000	576,369	576,369															
<b><u>Maintenance Vehicles</u></b>																											
5.215	1	1	Each	Mini Excavator	2039	15 to 20	20	13,500.00	13,500	13,500	23,900				23,900												
5.300	2	2	Each	Trucks, 3/4-Ton	2023	15 to 20	4	25,000.00	50,000	50,000	155,355								99,298								
5.310	1	1	Each	Truck, 1-Ton, Dump	2022	15 to 20	3	37,000.00	37,000	37,000	111,700							71,400									
		1	Allowance	2019 Reserve Expenditures	2019	N/A	0	20,000	20,000	20,000	20,000																
<b>Anticipated Expenditures, By Year</b>											<b>\$5,978,341</b>	781,291	55,895	28,328	11,761	244,400	18,009	78,283	424,086	415,402	141,475	181,597	141,512	373,213	74,186	390,950	



## RESERVE FUNDING PLAN

### CASH FLOW ANALYSIS

#### Pheasant Run

#### Association

#### LaGrange, Ohio

#### Individual Reserve Budgets & Cash Flows for the Next 30 Years

	FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
<b>Reserves at Beginning of Year (Note 1)</b>	296,641	182,174	180,831	155,603	172,239	139,706	86,287	156,164	201,551	70,190	172,135	304,989	350,251	367,101	532,057	642,926
<b>Total Recommended Reserve Contributions (Note 2)</b>	<b>25,584</b>	<b>115,100</b>	<b>153,400</b>	<b>191,700</b>	<b>230,000</b>	<b>268,300</b>	<b>306,600</b>	<b>315,500</b>	<b>324,600</b>	<b>146,000</b>	<b>150,200</b>	<b>154,600</b>	<b>159,100</b>	<b>163,700</b>	<b>168,400</b>	<b>173,300</b>
Plus <b>Estimated Interest Earned, During Year (Note 3)</b>	1,749	3,950	3,661	3,567	3,394	2,459	2,638	3,892	2,957	2,637	5,191	7,129	7,805	9,783	12,784	15,854
Less <b>Anticipated Expenditures, By Year</b>	(141,800)	(120,393)	(182,289)	(178,631)	(265,927)	(324,178)	(239,361)	(274,005)	(458,918)	(46,692)	(22,537)	(116,467)	(150,055)	(8,527)	(70,315)	(17,860)
<b>Anticipated Reserves at Year End</b>	<u>\$182,174</u>	<u>\$180,831</u>	<u>\$155,603</u>	<u>\$172,239</u>	<u>\$139,706</u>	<u>\$86,287</u>	<u>\$156,164</u>	<u>\$201,551</u>	<u>\$70,190</u>	<u>\$172,135</u>	<u>\$304,989</u>	<u>\$350,251</u>	<u>\$367,101</u>	<u>\$532,057</u>	<u>\$642,926</u>	<u>\$814,220</u>

(NOTE 5)

(continued)

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

	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
<b>Reserves at Beginning of Year</b>	814,220	221,397	348,907	507,093	685,508	632,650	807,510	925,280	701,191	486,310	549,101	578,371	654,675	504,373	659,248
<b>Total Recommended Reserve Contributions</b>	<b>177,200</b>	<b>177,200</b>	<b>177,200</b>	<b>177,200</b>	<b>177,200</b>	<b>177,200</b>	<b>177,200</b>	<b>182,300</b>	<b>187,600</b>	<b>193,000</b>	<b>198,600</b>	<b>204,400</b>	<b>210,300</b>	<b>216,400</b>	<b>222,700</b>
Plus <b>Estimated Interest Earned, During Year</b>	11,268	6,205	9,314	12,976	14,342	15,669	18,853	17,697	12,920	11,266	12,267	13,416	12,611	12,661	12,653
Less <b>Anticipated Expenditures, By Year</b>	(781,291)	(55,895)	(28,328)	(11,761)	(244,400)	(18,009)	(78,283)	(424,086)	(415,402)	(141,475)	(181,597)	(141,512)	(373,213)	(74,186)	(390,950)
<b>Anticipated Reserves at Year End</b>	<u>\$221,397</u>	<u>\$348,907</u>	<u>\$507,093</u>	<u>\$685,508</u>	<u>\$632,650</u>	<u>\$807,510</u>	<u>\$925,280</u>	<u>\$701,191</u>	<u>\$486,310</u>	<u>\$549,101</u>	<u>\$578,371</u>	<u>\$654,675</u>	<u>\$504,373</u>	<u>\$659,248</u>	<u>\$503,652</u>

(NOTE 5)

(NOTE 4)

#### Explanatory Notes:

- 1) Year 2019 starting reserves are as of August 31, 2019; FY2019 starts January 1, 2019 and ends December 31, 2019.
- 2) Reserve Contributions for 2019 are the remaining budgeted 4 months; 2020 is the first year of recommended contributions.
- 3) 2.2% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.
- 4) Accumulated year 2049 ending reserves consider the need to fund for replacement of the asphalt pavement and concrete streets shortly after 2049, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

## FIVE-YEAR OUTLOOK

**Pheasant Run  
Association**  
LaGrange, Ohio

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
<b><u>Office, Maintenance and Sewage Buildings Exterior Building Elements</u></b>							
1.240	Gutters and Downspouts, Aluminum					8,140	
1.280	Roofs, Asphalt Shingles, Office and Maintenance Buildings					43,388	
1.760	Walls, Plywood Siding, Paint Finishes			11,118			
<b><u>Office Interior Building Elements</u></b>							
2.100	Air Handling and Condensing Units, Split Systems					9,000	
2.200	Floor Coverings, Carpet					13,667	
2.240	Floor Coverings, Tile					6,766	
2.560	Light Fixtures (Incl. Emergency and Exit Fixtures)						7,845
2.900	Rest Rooms, Fixtures and Partitions					9,530	
<b><u>Property Site Elements</u></b>							
4.020	Asphalt Pavement, Crack Repair and Patch, Phase 1					6,121	
4.021	Asphalt Pavement, Crack Repair and Patch, Phase 2			12,504			
4.022	Asphalt Pavement, Crack Repair and Patch, Phase 3 (Incl. Basketball Court)				7,444		
4.045	Asphalt Pavement, Total Replacement, Phase 1, Phased (2019 is Planned)	117,000	120,393				
4.048	Asphalt Pavement, Total Replacement, Phase 4						295,567
4.049	Asphalt Pavement, Total Replacement, Phase 5, Phased			118,198	121,626		
4.095	Bridge, Wood, Near Playground				9,261		
4.100	Catch Basins, Asphalt Streets, Inspections and Capital Repairs, Phase 1 (2019 is Planned)	4,800					
4.105	Catch Basins, Concrete Streets, Inspections and Capital Repairs, Phased					7,175	
4.180	Concrete Streets, Partial					106,083	
4.650	Pipes, Subsurface Utilities						20,766
4.660	Playground Equipment			15,883			
4.710	Ponds and Lake, Erosion Control, Partial			24,586			
<b><u>Maintenance Vehicles</u></b>							
5.300	Trucks, 3/4-Ton					56,057	
5.310	Truck, 1-Ton, Dump				40,300		
2019 Reserve Expenditures		20,000					
<b>Anticipated Expenditures, By Year</b>		<b>141,800</b>	<b>120,393</b>	<b>182,289</b>	<b>178,631</b>	<b>265,927</b>	<b>324,178</b>

## 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.*

### Office, Maintenance and Sewage Exterior Building Elements



Office building front overview



Office building side overview



Pavilion overview



Sewage building side and rear overview

## Doors, Garage

---

**Line Item:** 1.200

**Quantity:** The Association maintains the four garage doors at the maintenance and sewage buildings.

**History:** Unknown

**Condition:** Fair overall with isolated garage door frame deterioration at the sewage building.

**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.

## Gutters and Downspouts, Aluminum

---

**Line Item:** 1.240

**Quantity:** Approximately 660 linear feet of aluminum gutters and downspouts drain storm water from the common building roofs; This quantity includes the pavilion near the office building.

**History:** Unknown

**Condition:** Fair overall with isolated deterioration and loose fasteners evident



Gutter and downspout assembly



Minor gutter deterioration at the office building

**Useful Life:** 15- to 20-years

The useful life of gutters and downspouts coincides with that of the asphalt shingle roofs. Coordinated replacement will result in the most economical unit price and minimize the possibility of damage to other roof components as compared to separate replacements.

**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.

## Roofs, Asphalt Shingles

---

**Line Item:** 1.280

**Quantity:** Approximately 90 *squares*<sup>1</sup> of asphalt shingles comprise the office and maintenance building, and pavilion roofs

**History:** Unknown

**Condition:** Fair overall with discoloration and shingle lift evident. Management and the Board do not report a history of leak.



Maintenance building roof; we note shingle discoloration



Pavilion roof; we note shingle lift

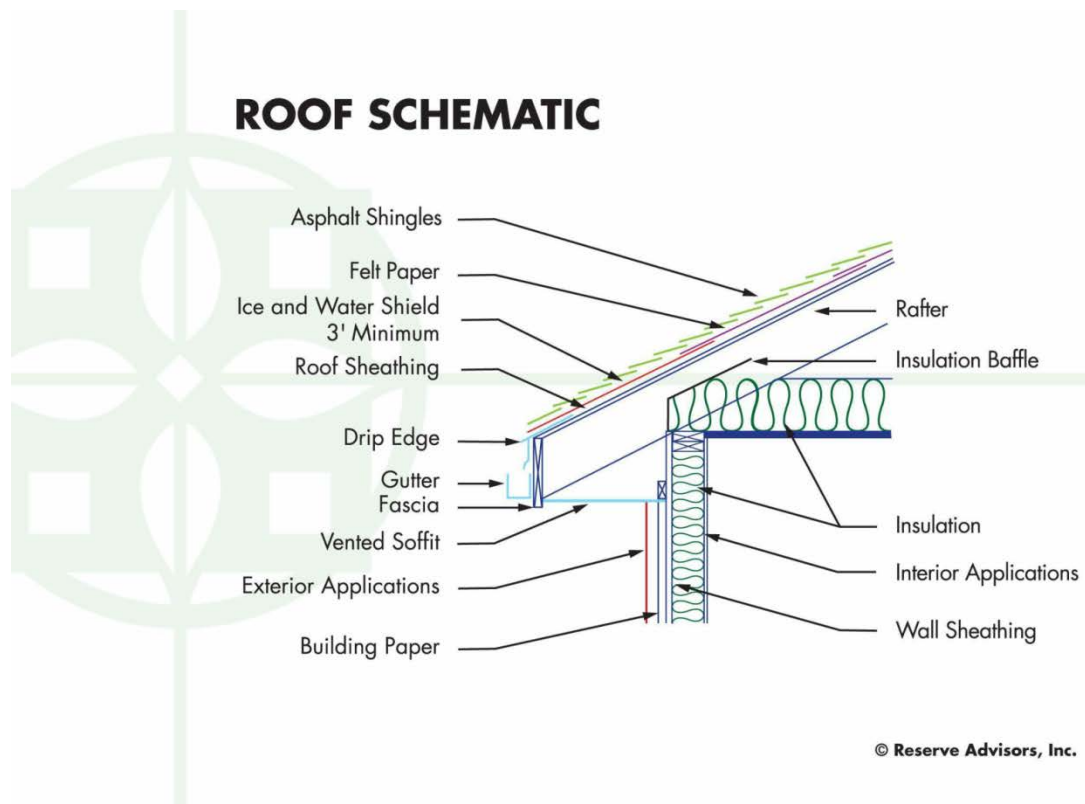
**Useful Life:** 15- to 20-years

**Component Detail Notes:** The existing roof assembly comprises the following:

- Three tab shingles
- Boston style ridge caps
- Ridge and square hood box vents
- Metal drip edge

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

The following cross-sectional schematic illustrates a typical asphalt shingle roof system although it may not reflect the actual configuration at Pheasant Run:



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.

The Association should plan to coordinate the replacement of gutters and downspouts with the adjacent roofs. This will result in the most economical unit price and minimize the possibility of damage to other roof components as compared to separate replacements.

**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.

## **Roof and Siding, Metal, Sewage Building**

---

**Line Item:** 1.460

**Quantity:** Approximately 2,300 square feet of sheet metal roofing and 3,680 square feet of sheet metal siding with exposed fasteners comprise the Sewage Building.

**History:** Original

**Condition:** Good overall

**Useful Life:** Thermal expansion and contraction of the metal panels will result in elongation of fastener holes and eventual water infiltration. Therefore, the Association should anticipate renovations to the Sewage Building every 35 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. Based on the age and condition of these elements, we recommend Pheasant Run fund for a renovation by 2030. Renovation should include replacement of the metal roof and siding, and capital repairs to the building support structure.

## **Walls, Plywood and Fiber Cement, Paint Finishes**

---

**Line Items:** 1.755 and 1.760

**Quantity:** The office and maintenance buildings, and pavilion, include paint finish applications on the following surfaces:

- Doors
- Plywood siding
- Soffits and fascia
- Trim

**History:** Unknown year of last paint finish application.

**Condition:** Fair overall with deterioration evident



**Trim deterioration at the office building**



**Plywood siding paint finish deterioration at the office building**



**Trim and plywood siding finishes deterioration at the office building**



**Plywood siding paint finish deterioration at the office building**

**Useful Life:** Four- to six-years for plywood siding and 8- to 10-years for fiber cement siding.

**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 assume the following activities per event:

- Paint finish applications
- Replacement of 200 square feet, or up to five percent (5%), of the siding and trim (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever holes, cracks and deterioration impair the ability of the material to prevent water infiltration.)
- Replacement of sealants as needed





We recommend replacement of the plywood siding with fiber cement siding in the near term. We include a cost analysis, based on the total square footage of 4,400 square feet of plywood siding, which compares the future costs of maintenance and replacement of the two types of siding:

Siding Material	Plywood	Fiber Cement
Cost in 2019 Dollars	\$30,800	\$33,000
Divided by its Useful Life (Years)	35	50
Equals Cost of Ownership <sup>1</sup> Relating to Eventual Replacement, in 2019 Dollars	\$880	\$660
Total Life-Cycle Maintenance Costs, in 2019 Dollars	\$10,577	\$10,577
Divided by Life-Cycle of Each Maintenance Event (Years)	5	9
Cost of Ownership for Maintenance During Remaining Useful Life, in 2019 Dollars	\$2,115	\$1,175
<b>Total Annual Cost of Ownership (2019 dollars)</b>	<b>\$2,995</b>	<b>\$1,835</b>

<sup>1</sup> Cost of Ownership is a method to describe the direct and indirect costs to purchase and maintain an element through its entire useful life.

We recommend the Association anticipate paint finish applications to the fiber cement by 2036 and again by 2046. The following activities should be included in each fiber cement paint finish application:

- Paint finish applications to the siding and trim
- Replacement of a limited amount of fiber cement siding (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever holes, cracks and deterioration impair the ability of the material to prevent water infiltration.)
- Replacement of sealants as needed

## Walls, Plywood Siding

**Line Item:** 1.945

**Quantity:** Plywood siding comprises approximately 4,400 square feet of the exterior walls at the office and maintenance buildings, and the pavilion. This quantity includes the soffit, fascia, trim and isolated areas of wood siding.

**History:** Original

**Condition:** Fair overall with deterioration evident

**Useful Life:** Up to 35 years. However, failure to conduct paint applications and repairs in a timely manner will reduce the remaining useful life of the siding.

**Component Detail Notes:** As previously stated, timely paint applications and repairs are critical to maximize the remaining useful life of the siding. See “**Walls, Plywood and Fiber Cement Siding, Paint Finishes**” for our recommendations on these applications.

**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.

## Windows and Doors

---

**Line Item:** 1.980

**Quantity:** The common building windows and doors comprise approximately 210 square feet.

**History:** Varying ages

**Condition:** Fair overall with finish deterioration evident



**Door; we note finish deterioration**



**Window; we note finish deterioration**

**Useful Life:** Up to 45 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.

## Office Interior Building Elements



Meeting room



Office

### Air Handling and Condensing Units, Split Systems

**Line Item:** 2.100

**Quantity:** The office building heating, ventilating and air conditioning (HVAC) equipment includes the following:

- Two remote condensing units
- Two gas-fired forced air handling unit

**History:** Unknown

**Condition:** Reported satisfactory without operational deficiencies



Office building condensing units

**Useful Life:** 15- to 20-years

**Component Detail Notes:** A split system air conditioner consists of an outside condensing unit, an interior evaporator coil, refrigerant lines and an interior gas-fired forced air handling unit. The condensing units have cooling capacities of 2.5-tons each and the interior units have heating capacities of 50-MBH (thousand British Thermal Units per hour) each.

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. 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:
  - Lubricate motors and bearings
  - Change or clean air filters as needed
  - Inspect condenser base and piping insulation
  - Inspect base pan, coil, cabinet and clear obstructions as necessary
- Annually:
  - Clean coils and drain pans, clean fan assembly, check refrigerant charge, inspect fan drive system and controls
  - Inspect and clean accessible ductwork as needed
  - Clean debris from inside cabinet, inspect condenser compressor and associated tubing for damage

**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. The condensing unit may require replacement prior to replacement of the related interior forced air unit. For purposes of this Reserve Study, we assume coordination of replacement of the interior forced air unit, evaporator coil, refrigerant lines and exterior condensing unit.

## **Floor Coverings, Carpet**

---

**Line Item:** 2.200

**Quantity:** Approximately 230 square yards at the office building (Contractor measurements will vary from the actual floor area due to standard roll lengths, patterns and installation waste.)

**History:** Unknown

**Condition:** Fair overall with minor stains



**Carpet floor coverings; we note minor stains**

**Useful Life:** 8- to 12-years

**Priority/Criticality:** Per Board discretion

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

## **Floor Coverings, Tile**

---

**Line Item:** 2.240

**Quantity:** Ceramic and vinyl tile comprises approximately 85 square yards of the office building floor coverings.

**History:** Unknown

**Condition:** Fair overall; we note isolated deterioration



**Ceramic tile at the office building hallway; we note isolated deterioration**

**Useful Life:** Up to 30 years although replacement of tile is often based on discretionary redecorating prior to the tile reaching the end of its useful life.

**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 fund regrouting of the tiles through the operating budget if necessary.

## Kitchen

---

**Line Item:** 2.520

**History:** Components are at unknown age.

**Condition:** Good to fair overall



**Office building kitchen**

**Useful Life:** Renovation up to every 25 years

**Component Detail Notes:** Components of the kitchen include:

- Appliances
- Cabinets and countertops
- Plumbing fixtures

**Priority/Criticality:** Per Board discretion

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

## Light Fixtures

---

**Line Item:** 2.560

**Quantity:** Approximately 40 interior wall and ceiling mounted light fixtures located throughout the common areas; this quantity includes the emergency and exit light fixtures.

**History:** Unknown year of last replacement

**Condition:** Reported satisfactory



**Emergency light fixture**

**Useful Life:** Up to 20 years

**Priority/Criticality:** Per Board discretion

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

## Rest Rooms

---

**Line Item:** 2.900

**Quantity:** The Association maintains three rest rooms at the office building.

**History:** Components are at unknown age

**Condition:** Fair overall



**Restroom fixtures**

**Useful Life:** Renovation up to every 25 years

**Component Detail Notes:** Components include:

- Partitions
- Sinks
- Toilets
- Plumbing fixtures

**Priority/Criticality:** Per Board discretion

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

## **Security System**

---

**Line Items:** 2.955

**Quantity:** Pheasant Run utilizes a security system at the office and maintenance buildings. The security system components:

- Cameras
- Recorder

**History:** The security system is at an unknown age.

**Condition:** Reported satisfactory





**Office building security camera**

**Useful Life:** 10- to 15-years

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

- Weekly:
  - Clean frequently used equipment of dust and other materials that may prevent proper operation
- 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 even

## Property Site Elements

### Asphalt Pavement, Crack Repair and Patch

---

**Line Items:** 4.020 – 4.024

**Quantity:** Approximately 50,150 square yards comprising streets throughout the community, the basketball court near the pavilion, and the office building parking area; East Parkway is maintained by the Township, we removed this quantity which was previously included in the original study. For the purpose of this reserve study, we have divided the pavement into five phases based on condition and the history of repairs and repaving.

**History and Condition:** Please see the table in the section titled “**Asphalt Pavement, Repaving**” for a detailed quantity, history and condition of each pavement phase.

**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 includes an allowance for crack repairs and patching of up to two percent (2%) of the pavement.

### Asphalt Pavement, Repaving

---

**Line Items:** 4.040 – 4.049

**Quantity:** Approximately 50,150 square yards comprising streets throughout the community, the basketball court near the pavilion, and the office building parking area; East Parkway is maintained by the Township, we removed this quantity which was previously included in the original study. For the purpose of this reserve study, we have divided the pavement into five phases based on condition and the history of repairs and repaving.

**History and Condition:** The table below depicts street names, detailed quantity, history, and condition of each pavement phase:

Phase	Street Name	Quantity (Square Yards)	History	Condition
1	Anglers Lane, Sunset Drive, Lakeview Court, Quaterhorse Lane	7,800	The Association Plans to repave these streets in 2019	Fair overall with cracks and deterioration evident
2	East Lake and Pheasant Run Drives, Forest Park Drive, Walleye, Perch, Bass, Pike, Morgan, and Mallard Courts	16,870	Unknown year of last repair or repaving	Fair overall with cracks and deterioration evident
3	Front Entrance, Hichory Run, Stable Road	9,760	Repaved in 2017	Good to fair overall with minor isolated cracks
4	Fairway Drive, Stallion and Arabian Courts	8,400	The Association Plans to conduct crack repairs at these streets in 2019	Ongoing repairs at the time of inspection
5	Parking lot, Sales Drive, Palomino, Ringneck, and Bobwhite Courts	7,320	Unknown year of last repair or repaving	Fair to poor overall with cracks and deterioration evident



**Phase 1 pavement, Sunset Drive; we note cracks**



**Phase 1 pavement, cracks at Sunset Drive**



**Phase 2 pavement, East Lake Drive; we note cracks**



**Phase 2 pavement, deterioration at Bass Court**



**Phase 3 pavement, front entrance of the community**



**Phase 3 pavement, Hickory Run**



**Phase 3 pavement, cracks at Hickory Run**



**Phase 4 pavement, ongoing repairs at Stallion Court**



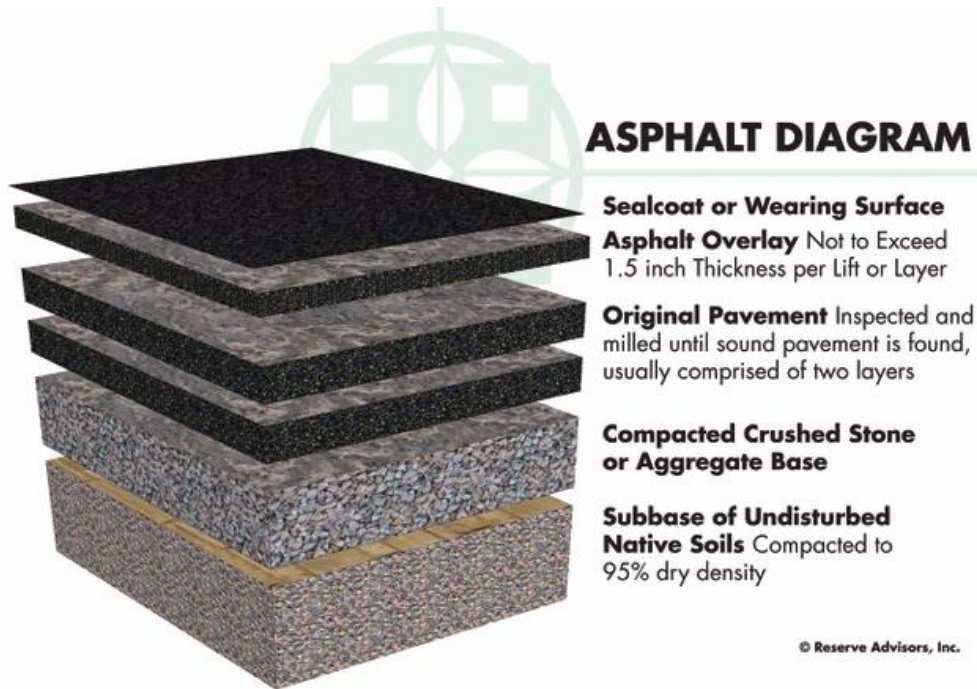
**Phase 5 pavement, Palomino Court; we note cracks and deterioration**



**Phase 5 pavement, cracks and deterioration at Ringneck Court**

**Useful Life:** 20- to 30-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 Pheasant Run:



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 for initial repaving followed by the mill and overlay method for subsequent repaving at Pheasant Run.

**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 total replacement of Phase 4 and 5 pavement includes inspections and capital repairs of the catch basins.

## Bridge, Wood

---

**Line Item:** 4.095

**Quantity:** The Association maintains a wood pedestrian bridge near the playground.

**History:** Unknown

**Condition:** Fair overall with loose fasteners, deck board and railing deterioration evident



**Wood bridge**



**Wood bridge railing deterioration and loose fasteners**



**Wood bridge deck board deterioration**

**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. We recommend the Association conducts repairs as needed funded through the operating budget.

## Catch Basins

**Line Items:** 4.100 – 4.105

**Quantity, History, and Condition:** The table below depicts detailed quantity, history, and condition of the catch basins:

Phase	Quantity	History	Condition
1	6	The Association plans to conduct repairs at the catch basins in 2019	Fair overall
2	5	Unknown year of last repair or repaving	Fair overall with exposed collar and deterioration evident
3	4	Repaired in 2017	Good to fair overall
Concrete streets	56	The Association replaced and repaired a portion of the catch basins in 2019	Good to fair overall with previous replacements and cracks at the collar evident



Catch basin collar crack at Horseshoe Drive



Catch basin replacement at Horseshoe Drive



**Catch basin deterioration at Morgan Court**



**Catch basin exposed collar at Pike Court**

**Useful Life:** The useful life of catch basins is up to 65 years. However, achieving this useful life usually requires interim capital repairs or partial replacements every 15- to 20-years.

**Component Detail Notes:** Erosion causes settlement around the collar of catch basins. Left unrepaired, the entire catch basin will shift and need replacement.

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association plan for inspections and capital repairs to the catch basins in conjunction with repaving.

## Concrete Streets

---

**Line Item:** 4.180

**Quantity and Condition:** Approximately 157,700 square feet comprise the concrete streets throughout the community; the table below depicts street names and condition:



Street name	Condition
Timberwolfe Lane	Good to fair
Bobcat Drive	Good to fair
Grey Wolf Drive	Good to fair
Mountain Lion Drive	Good to fair
Turtle Creek	Good to fair
Horseshoe Drive	Fair overall with deterioration evident
East Lake Court	Good to fair with deterioration evident
Blackbear Run	Good



**Concrete street, East Lake Drive**



**Concrete street deterioration at East Lake Court**



**Concrete street deterioration at Horseshoe Drive**

**Useful Life:** Up to 55 years although interim deterioration of areas is common

**Component Detail Notes:** During cold weather, concrete streets contract causing joints to widen which allows for the accumulation of debris. During warm weather, the pavement expands and the joints narrow. Accumulated incompressible debris in the joints produces high compressive stresses at the adjoining faces of the joints. These compressive stresses can cause spalling of the concrete along the joints. In addition, coarse aggregates used in concrete pavement are susceptible to disintegration ("D" cracking) from repeated freeze and thaw cycles. The disintegration and spalling associated with these stresses typically occurs at open, unsealed pavement joints due to moisture and debris accumulation in the joints. For these reasons, we recommend the Association seal all concrete street joints to maximize the useful life of the concrete. The Association should fund these expenses through the operating budget.

**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 55,195 square feet of concrete streets, or thirty-five percent (35%) of the total, will require replacement during the next 30 years.

## **Fences, Wood, Split Rail**

---

**Line Item:** 4.286

**Quantity:** Approximately 2,380 linear feet of split rail wood fences are found along the west perimeter of the community and Diagonal Road, along Pheasant Run Drive and near the maintenance building.

**History:** Unknown

**Condition:** Good to fair overall with organic growth and isolated leaning sections



**Wood split rail fence; we note organic growth and leaning sections**

**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. The Association should anticipate periodic partial replacements funded through the operating budget due to the non-uniform nature of wood deterioration.

## **Guard Rails, Metal**

---

**Line Item:** 4.295

**Quantity:** Approximately 245 linear feet of metal guard rails are found along Pheasant Run Drive.

**History:** Unknown

**Condition:** Good overall



**Guard rail**

**Useful Life:** Up to 35 years

**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 periodic partial replacements of deteriorated wood posts funded through the operating budget.

## **Mailbox Stations, Metal**

---

**Line Item:** 4.600

**Quantity:** Six metal mailbox stations at the northwest portion of the community.

**History:** Installed in 2004.

**Condition:** Fair overall with finish deterioration evident



**Mailbox station; we note finish deterioration**

**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.

## **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.

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for replacement of approximately 150 linear feet of subsurface utility pipes every three years beginning by 2024. Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, Pheasant Run 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 playground equipment near the office building.

**History:** Unknown

**Condition:** Fair overall with rust and finish deterioration evident



Playground equipment



Spring rider rust and finish deterioration

**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](http://PlaygroundSafety.org). We recommend the use of a specialist for the design or replacement of the playground equipment environment.

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

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

## **Ponds and Lake, Erosion Control**

---

**Line Item:** 4.710

**Quantity:** Approximately 9,040 linear feet of natural vegetation and concrete rip rap at two ponds near the community entrance at Pheasant Run Drive, a pond near the office building, and a lake near the office building.

**Condition:** Fair overall with shoreline soil erosion evident



**Lake overview**



**Pond overview**



**Lake shoreline concrete rip rap**



**Lake shoreline erosion**



**Pond shoreline erosion**

**Useful Life:** Shorelines are subject to fluctuations in water levels, increased plant growth and migrating storm and ground water resulting in the need for erosion control measures every seven years.

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

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

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

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association plan to install a combination of plantings and rip rap around the pond along 540 linear feet, or approximately six percent (6%), of the shoreline per event.

## **Pond, Sediment Removal**

---

**Line Item:** 4.730

**Quantity:** Approximately 107,300 square yards of water surface area



**Condition:** Good overall

**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.

**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 the entire surface area of the ponds and up to five percent (5%) of the lake surface area for a total of seventeen percent (17%) of the combined total surface area of the ponds and lakes. 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 Pheasant Run 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.



## Maintenance Vehicles

### Trucks and Mini Excavator

---

**Line Items:** 5.215 – 5.310

**Quantity:** The Association maintains two ¾-ton trucks, one mini excavator, and one 1-ton truck with a rear dumpster.

**History:** The mini excavator was purchased in 2019. The ¾-ton trucks are at ages of 10- and 13-years. The 1-ton truck is at the age of 14 years.

**Condition:** Reported satisfactory.

**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. Our cost of replacement of the mini excavator is based on information provided by Management.

### 2019 Reserve Expenditures

---

**Line Item:** Last

**Component Detail Notes:** Pheasant Run will expend \$20,000 in reserve expenditures in 2019 for drainage improvements.

**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.

Pheasant Run can fund capital repairs and replacements in any combination of the following:

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

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

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

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

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

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

Ohio at an annual inflation rate<sup>3</sup>. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

- The past and current maintenance practices of Pheasant Run 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.

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



## 6. CREDENTIALS

### HISTORY AND DEPTH OF SERVICE

**Founded in 1991**, Reserve Advisors, Inc. 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 principals are founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our principals 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.

**QUALIFICATIONS**  
**THEODORE J. SALGADO**  
**Principal Owner**

**CURRENT CLIENT SERVICES**

Theodore J. Salgado is a co-founder of Reserve Advisors, Inc., which is dedicated to serving community associations, city and country clubs, religious organizations, educational facilities, and public and private entities throughout the United States. He is responsible for the production, management, review, and quality assurance of all reserve studies, property inspection services and consulting services for a nationwide portfolio of more than 6,000 clients. Under his direction, the firm conducts reserve study services for community associations, apartment complexes, churches, hotels, resorts, office towers and vintage architecturally ornate buildings.



**PRIOR RELEVANT EXPERIENCE**

Before founding Reserve Advisors with John P. Poehlmann in 1991, Mr. Salgado, a professional engineer registered in the State of Wisconsin, served clients for over 15 years through American Appraisal Associates, the world's largest full service valuation firm. Mr. Salgado conducted facilities analyses of hospitals, steel mills and various other large manufacturing and petrochemical facilities and casinos.

He has served clients throughout the United States and in foreign countries, and frequently acted as project manager on complex valuation, and federal and state tax planning assignments. His valuation studies led to negotiated settlements on property tax disputes between municipalities and property owners.

Mr. Salgado has authored articles on the topic of reserve studies and facilities maintenance. He also co-authored Reserves, an educational videotape produced by Reserve Advisors on the subject of Reserve Studies and maintaining appropriate reserves. Mr. Salgado has also written in-house computer applications manuals and taught techniques relating to valuation studies.

**EXPERT WITNESS**

Mr. Salgado has testified successfully before the Butler County Board of Tax Revisions in Ohio. His depositions in pretrial discovery proceedings relating to reserve studies of Crestview Estates Condominium Association in Wauconda, Illinois, Rivers Point Row Property Owners Association, Inc. in Charleston, South Carolina and the North Shore Club Associations in South Bend, Indiana have successfully assisted the parties in arriving at out of court settlements.

**EDUCATION** - Milwaukee School of Engineering - B.S. Architectural Engineering

**PROFESSIONAL AFFILIATIONS/DESIGNATIONS**

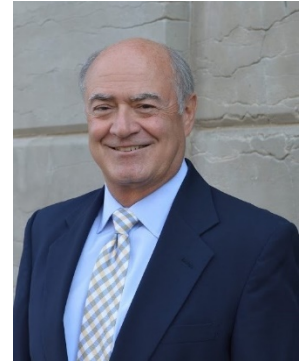
American Association of Cost Engineers - Past President, Wisconsin Section  
Association of Construction Inspectors - Certified Construction Inspector  
Association of Professional Reserve Analysts - Past President & Professional Reserve Analyst (PRA)  
Community Associations Institute - Member and Volunteer Leader of multiple chapters  
Concordia Seminary, St. Louis - Member, National Steering Committee  
Milwaukee School of Engineering - Member, Corporation Board  
Professional Engineer, Wisconsin (1982) and North Carolina (2014)

Ted continually maintains his professional skills through American Society of Civil Engineers, ASHRAE, Association of Construction Inspectors, and continuing education to maintain his professional engineer licenses.

**JOHN P. POEHLMANN, RS**  
**Principal**

John P. Poehlmann is a co-founder of Reserve Advisors, Inc. He is responsible for the finance, accounting, marketing, and overall administration of Reserve Advisors, Inc. He also regularly participates in internal Quality Control Team Reviews of Reserve Study reports.

Mr. Poehlmann directs corporate marketing, including business development, advertising, press releases, conference and trade show exhibiting, and electronic marketing campaigns. He frequently speaks throughout the country at seminars and workshops on the benefits of future planning and budgeting for capital repairs and replacements of building components and other assets.



**PRIOR RELEVANT EXPERIENCE**

Mr. Poehlmann served on the national Board of Trustees of Community Associations Institute. An international organization, Community Associations Institute (CAI) is a nonprofit 501(c)(3) trade association created in 1973 to provide education and resources to America's 335,000 residential condominium, cooperative and homeowner associations and related professionals and service providers.

He is a founding member of the Institute's Reserve Committee. The Reserve Committee developed national standards and the Reserve Specialist (RS) Designation Program for Reserve Study providers. Mr. Poehlmann has authored numerous articles on the topic of Reserve Studies, including Reserve Studies for the First Time Buyer, Minimizing Board Liability, Sound Association Planning Parallels Business Concepts, and Why Have a Professional Reserve Study. He is also a contributing author in Condo/HOA Primer, a book published for the purpose of sharing a wide background of industry knowledge to help boards in making informed decisions about their communities.

**INDUSTRY SERVICE AWARDS**

CAI Wisconsin Chapter Award  
CAI National Rising Star Award  
CAI Michigan Chapter Award

**EDUCATION**

University of Wisconsin-Milwaukee - Master of Science Management  
University of Wisconsin - Bachelor of Business Administration

**PROFESSIONAL AFFILIATIONS**

**Community Associations Institute (CAI)** - Founding member of Reserve Committee; former member of National Board of Trustees; Reserve Specialist (RS) designation; Member of multiple chapters

**Association of Condominium, Townhouse, & Homeowners Associations (ACTHA)** – member

**AIME V. MBAKOP**  
**Responsible Advisor**

**CURRENT CLIENT SERVICES**

Aime V. Mbakop, an Engineer, is an Advisor for Reserve Advisors. Mr. Mbakop is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes, planned unit developments and homeowner associations.



The following is a partial list of clients served by Aime Mbakop demonstrating the breadth of experiential knowledge of community associations in construction and related buildings systems.

**Governor's Grove Condominium Association, Inc.** - An upscale residential property located in Williamsburg, Virginia, these three-story condominium buildings contain 100 units. The property includes multiple styles of exterior building elements, a clubhouse, a pool, and a retention pond.

**Charlestown Meadows Community Association** - Located in Malvern, Pennsylvania, this community comprises 191 townhomes in 50 buildings. The Association maintains various common elements including a tennis court, a controlled access clubhouse, a pool, and walking paths.

**Linton at Ballenger Community Association, Inc.** - This planned unit development consist of a combination of 180 single family homes and 249 townhomes. Residents enjoy common elements including a pedestrian bridge, ponds, multiple playground equipment, a controlled access clubhouse including a fitness center, and a pool comprising a picnic area.

**Batson Creek Estates Community Association, Inc.** - Located in Frankford, Delaware, this community features a clubhouse including a fitness center, a pool, and an outdoor fire pit area. The Community contains 110 single family homes. The Association maintains a number of common elements including storm water management systems, irrigation system, and a pool house.

**Inlet Cove Homeowners Association, Inc.** - Located in Fort Belvoir, Virginia, this planned unit development was built in 2001 and comprises 256 homes. The community features a clubhouse and a pool. Additional components of the community include large retaining walls, a volleyball court, and multiple monuments.

**Brookfield Homeowners Association, Inc.** - This master planned community of 253 single family homes and 263 townhomes is located in Falling Waters, West Virginia. The community features an extensive boat ramp, multiple pavilions, and controlled access gates. The Association is responsible for a number of additional common elements including 17 miles of asphalt pavement.

**Lords Landing Village Condominium** - Located in Upper Marlboro, Maryland, these two and three-story condominiums were built from 1987 to 1992 and contain 200 units in 21 buildings. The Association is responsible for various common elements including multiple styles of exterior building elements and breezeways.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Mr. Mbakop worked for the United States Patent and Trademark Office in Alexandria Virginia, where he was working as a patent examiner. Mr. Mbakop attended the School of Engineering and Applied Science at the University of the District of Columbia where he attained his Bachelor of Science degree in Electrical Engineering.

**EDUCATION**

University of the District of Columbia - B.S. Electrical Engineering

**PROFESSIONAL AFFILIATION**

*Engineer in Training (E.I.T.) – District of Columbia*

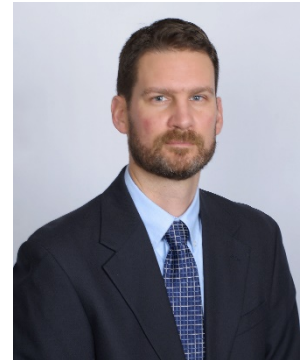


**ALAN M. EBERT, P.E., PRA, RS**  
**Director of Quality Assurance**

**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, Inc. 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](http://www.iami.org). Several advisors and a Principal of Reserve Advisors, Inc. hold Senior Memberships with ACI.

**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](http://www.ashrae.org). Reserve Advisors, Inc. 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](http://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](http://www.rsmeans.com).

Reserve Advisors, Inc., 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 Pheasant Run 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) Pheasant Run 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, Inc. (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.