Revised
RESERVE STUDY
Parkwood Village Homeowners Association

Madison, Wisconsin

Inspected - October 14, 2020
Revised - August 24, 2021

RESERVE™ ADVISORS
Long-term thinking. Everyday commitment.

RESERVE ADVISORS
Long-term thinking. Everyday commitment.

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

Parkwood Village Homeowners Association
Madison, Wisconsin

Dear Board of Directors of Parkwood Village Homeowners Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of Parkwood Village Homeowners Association in Madison, Wisconsin and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, October 14, 2020.

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 Parkwood Village Homeowners Association plan for a successful future.

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

Respectfully submitted on August 24, 2021 by

Reserve Advisors, LLC

Visual Inspection and Report by: Heather M. Christensen, RS[1] and Jorge L. Maya
Review by: Alan M. Ebert, RS, PRA[2], Director of Quality Assurance

ASSOCIATION OF PROFESSIONAL RESERVE ANALYSTS
Alan Ebert
Professional Reserve Analyst
2261
APRA

[1] RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.
[2] PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at http://www.apra-usa.com.

RESERVE ADVISORS

Long-term thinking. Everyday commitment.

Table of Contents

1. RESERVE STUDY EXECUTIVE SUMMARY 1.1

2. RESERVE STUDY REPORT 2.1

3. RESERVE EXPENDITURES and FUNDING PLAN 3.1

4. RESERVE COMPONENT DETAIL 4.1

Exterior Building Elements 4.2

Balconies, Wood 4.2

Foundations, Capital Repairs 4.4

Gutters and Downspouts, Aluminum 4.4

Roofs, Asphalt Shingles 4.6

Walls, Masonry 4.12

Walls, Siding, Vinyl 4.15

Property Site Elements 4.18

Asphalt Pavement, Crack Repair and Patch 4.18

Asphalt Pavement, Repaving 4.18

Catch Basins 4.21

Concrete Sidewalks 4.21

Concrete Stoops 4.23

Fences, Wood 4.24

Light Poles and Fixtures 4.25

Pipes, Subsurface Utilities 4.26

Retaining Wall, Timber 4.27

Clubhouse Elements 4.28

Air Handling Unit, Furnace 4.28

Floor Coverings, Laminate 4.29

Kitchenette 4.30

Rest Room 4.31

Pool Elements 4.32

Concrete Deck 4.32

Cover, Vinyl 4.33

Fence, Chain Link 4.34

Furniture 4.35

Mechanical Equipment 4.36
Pool Finishes, Plaster and Tile 4.37
Structure and Deck.....4.38
Reserve Study Update.....4.39

5. METHODOLOGY 5.1
6. CREDENTIALS 6.1
7. DEFINITIONS 7.1
8. PROFESSIONAL SERVICE CONDITIONS 8.1

1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Parkwood Village Homeowners Association (Parkwood Village)
Location: Madison, Wisconsin
Reference: 085830

Property Basics: Parkwood Village Homeowners Association is a condominium style development consisting of 96 units in 18 buildings. The buildings were built from 1971 to 1972. The buildings comprise vinyl siding and asphalt shingle roofs.

Reserve Components Identified: 31 Reserve Components.

Inspection Date: October 14, 2020. We conducted previous inspections in 2009, 2012 and 2016.

Funding Goal: The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes these threshold funding years in 2035 and 2040 due to replacement of the vinyl siding and the asphalt pavement. In addition, the Reserve Funding Plan recommends 2050 year end accumulated reserves of approximately $1,317,500. We judge this amount of accumulated reserves in 2050 necessary to fund the likely replacement of the pavement and roofs after 2050. Future replacement costs beyond the next 30 years for the replacement of the pavement and roofs are likely to more than double the current cost of replacement. These future needs, although beyond the limit of the Cash Flow Analysis of this Reserve Study, are reflected in the amount of accumulated 2050 year end reserves.

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
- 0.9% anticipated annual rate of return on invested reserves
- 2.0% future Inflation Rate for estimating Future Replacement Costs

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

Cash Status of Reserve Fund:

- $73,115 as of August 31, 2020
- 2020 budgeted Reserve Contributions of $97,828
- 2021 budgeted Reserve Contributions of $101,284

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

- Replacement of the roofs as deferral may result in increased water infiltration and cost
- Systematic preventative maintenance to the masonry facade to minimize the potential for water infiltration
- Pool plaster replacement

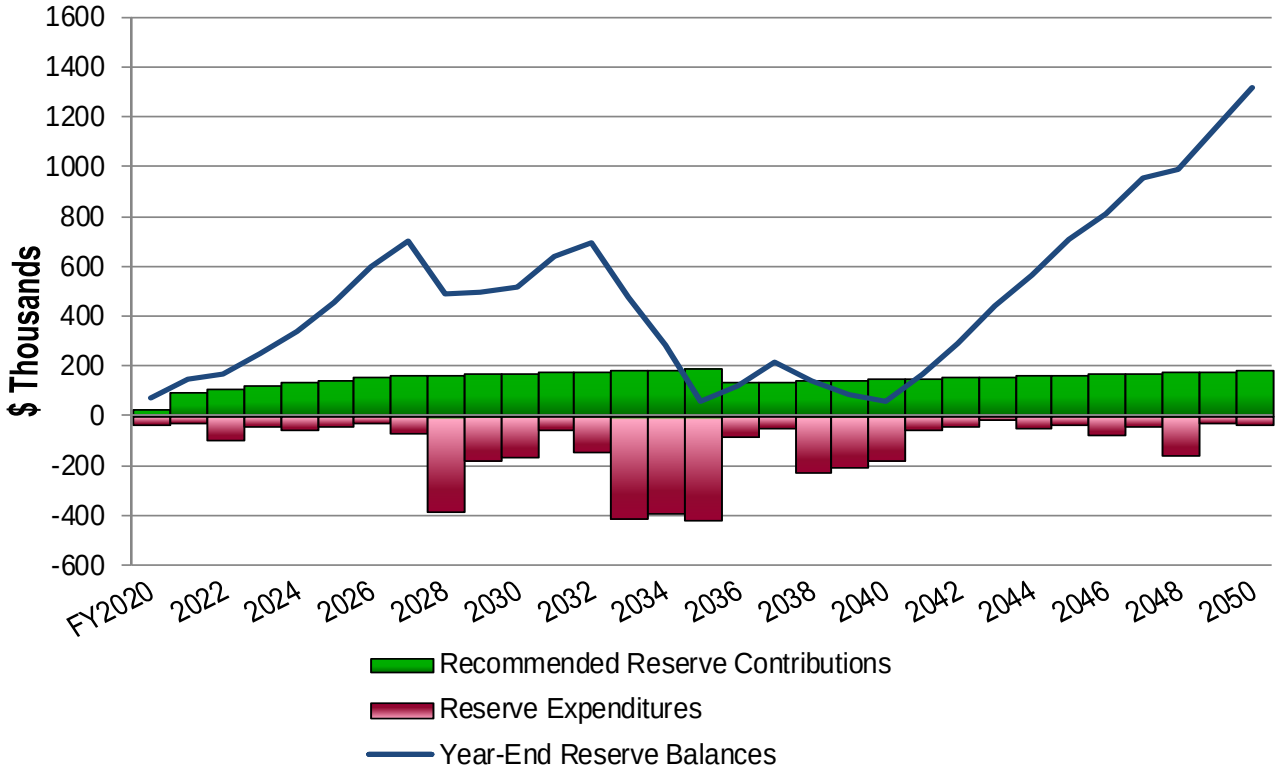
Recommended Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Phased increases of approximately $12,000 from 2022 through 2026
- Inflationary increases from 2027 through 2035
- Decrease to $140,000 by 2036 due to fully funding for replacement of the vinyl siding
- Inflationary increases through 2050, the limit of this study's Cash Flow Analysis
- Initial recommended adjustment in Reserve Contributions of $12,016 represents an average monthly increase of $10.43 per unit owner and about a five percent (5.0%) adjustment in the 2021 total Operating Budget of $237,948.

Parkwood Village

Recommended Reserve Funding Table and Graph

Year	Contributions ($)	Reserve Balances ($)	Year	Contributions ($)	Reserve Balances ($)	Year	Contributions ($)	Reserve Balances ($)
2021	101,284	146,932	2031	178,100	642,863	2041	154,600	165,844
2022	113,300	165,323	2032	181,700	691,838	2042	157,700	290,227
2023	125,300	252,646	2033	185,300	474,002	2043	160,900	441,993
2024	137,300	341,064	2034	189,000	280,865	2044	164,100	564,168
2025	149,300	454,347	2035	192,800	57,047	2045	167,400	707,405
2026	161,300	595,914	2036	140,000	116,814	2046	170,700	813,380
2027	164,500	701,622	2037	142,800	218,046	2047	174,100	956,921
2028	167,800	492,432	2038	145,700	143,000	2048	177,600	991,700
2029	171,200	493,447	2039	148,600	86,903	2049	181,200	1,156,429
2030	174,600	513,969	2040	151,600	60,636	2050	184,800	1,317,545



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

Parkwood Village Homeowners Association

Madison, Wisconsin

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, October 14, 2020. We conducted previous inspections in 2009, 2012 and 2016.

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

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

IDENTIFICATION OF PROPERTY

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

Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Unit Owners 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. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Unit Owners
- 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:

- Parkwood Village responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

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

- Gutter ad Downspout Assemblies at Subsequent Replacement of 2010-2012 Roofs
- Electrical Systems, Common
- Pipes, Subsurface Utilities
- Structural Frames, Type 2 Buildings and Clubhouse
- Windows and Doors, Clubhouse (2013)

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 $2,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Balconies, Deck Boards
- Chimney Caps, Metal
- Furniture, Clubhouse
- Landscape
- Light Fixtures
- Louvers
- Mailboxes
- Paint Finishes, Clubhouse Interior
- Pedestrian Ramp, Clubhouse
- Pipes, Interior Building, Water and Sewer, Clubhouse
- Playground Equipment, Swing Set

Wood rot and rust at clubhouse ramp

Swing set

- Security System, Clubhouse
- Signage
- Site Furniture
- Storage Room, Clubhouse
- Valves, Small Diameter (we assume replacement as needed in lieu of an aggregate replacement of all the small diameter valves as a single event)
- Water Heater, Clubhouse
- Other Repairs normally funded through the Operating Budget

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

- Decks and Patios
- Electrical Systems (Including Circuit Protection Panels)
- Garage Doors

Typical garage doors

- Heating, Ventilating and Air Conditioning (HVAC) Units

- Interiors
- Pipes (Within Units)
- Structural Frame Repairs, Type 1 Buildings (Special Assessment)
- Windows and Doors

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

- Fence, West Perimeter (Madison Metropolitan School District)
- Walking Path, North Perimeter (City of Madison)

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
- 2020 local cost of replacement
  - Per unit
  - Per phase
  - Replacement of total quantity
- Percentage of future expenditures anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

Reserve Funding Plan

- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end

Five-Year Outlook

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

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

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

RESERVE EXPENDITURES

Parkwood Village
Homeowners Association
Madison, Wisconsin

Explanatory Notes:

1) 2.0% is the estimated Inflation Rate for estimating Future Replacement Costs.

2) FY2020 is Fiscal Year beginning January 1, 2020 and ending December 31, 2020.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Life Analysis, Years Remaining	Costs, $ Unit (2020)	Costs, $ Per Phase (2020)	Costs, $ Total (2020)	Percentage of Future Expenditures	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025	6 2026	7 2027	8 2028	9 2029	10 2030	11 2031	12 2032	13 2033	14 2034	15 2035
				Exterior Building Elements																							
1.120	15	3	Each	Balconies, Wood, Phased	2022	to 25	2 to 6	1,250.00	3,750	18,750	1.4%			3,902	3,980	4,059	4,140	2,815									
1.210	17	1	Allowance	Foundations, Capital Repairs (2020 is Remaining)	2020	N/A	0	15,000.00	15,000	255,000	9.0%	33,840	15,300	15,606	15,918	16,236	16,561	16,892	17,230	17,575	17,926	18,285			19,404		
1.280	475	240	Squares	Roofs, Asphalt Shingles (2004 - 2007), Phased	2029	20 to 25	9 to 10	340.00	81,600	161,500	5.3%										97,520	99,470					
1.281	450	225	Squares	Roofs, Asphalt Shingles (2008 - 2009), Phased	2032	20 to 25	12 to 13	340.00	76,500	153,000	5.3%													97,020	98,961		
1.282	400	200	Squares	Roofs, Asphalt Shingles (2010 - 2012), Phased	2034	20 to 25	14 to 15	340.00	68,000	136,000	4.9%															89,725	91,519
1.820	28,000	28,000	Square Feet	Walls, Masonry, Inspections and Repairs	2022	6 to 10	2	1.10	30,800	30,800	4.4%			32,044								37,545					
1.920	128,100	42,700	Square Feet	Walls, Vinyl Siding (Atop Insulation Board and T1-11), Phased	2033	35 to 40	13 to 15	5.25	224,175	672,525	23.8%														289,994	295,794	301,710
				Property Site Elements																							
4.020	9,690	9,690	Square Yards	Asphalt Pavement, Crack Repair and Patch	2024	to 5	4	0.70	6,783	6,783	1.5%					7,342				7,947				8,602			
4.045	9,690	3,230	Square Yards	Asphalt Pavement, Total Replacement, Phased	2038	15 to 20	18 to 20	27.00	87,210	261,630	10.2%																
4.100	15	5	Each	Catch Basins, Inspections and Capital Repairs	2038	15 to 20	18 to 20	850.00	4,250	12,750	0.5%																
4.140	10,900	545	Square Feet	Concrete Sidewalks, Partial	2024	to 65	4 to 30+	13.00	7,085	141,700	1.9%					7,669				8,301				8,986			
4.170	96	5	Each	Concrete Stoops, Partial	2024	to 65	4 to 30+	2,000.00	10,000	192,000	2.6%					10,825				11,717				12,683			
4.285	100	100	Linear Feet	Fence, Wood, Grand Canyon Drive	2025	15 to 20	5	32.00	3,200	3,200	0.2%						3,533										
4.286	41	14	Each	Fences, Wood, Patios, 2012-2020, Phased	2037	to 25	17 to 21	2,250.00	30,758	92,250	3.6%																
4.287	55	18	Each	Fences, Wood, Patios, Remaining, Phased	2027	to 25	7 to 11	2,250.00	41,243	123,750	4.0%								47,375		49,289		51,280				
4.288	96	48	Each	Fences, Wood, Patios, Staining, Phased	2021	5 to 8	1 to 2	400.00	19,200	38,400	3.6%		9,584	9,976						9,673	9,867						14,729
4.560	1	1	Allowance	Light Poles and Fixtures (Including Building Mounted)	2023	to 25	3	18,800.00	18,800	18,800	1.4%				19,951												
4.650	1	1	Allowance	Pipes, Subsurface Utilities	2024	to 85+	4	5,000.00	5,000	5,000	1.3%					5,412				5,858				6,341			
4.760	170	170	Square Feet	Retaining Wall, Timber	2035	15 to 20	15	18.00	3,060	3,060	0.1%																4,118
				Clubhouse Elements																							
5.400	1	1	Each	Air Handling Unit, Furnace	2030	15 to 20	10	2,700.00	2,700	2,700	0.2%											3,291					
5.501	40	40	Square Yards	Floor Coverings, Laminate	2025	18 to 25	5	85.00	3,400	3,400	0.2%						3,754										
5.502	1	1	Allowance	Kitchenette	2025	18 to 25	5	3,200.00	3,200	3,200	0.2%						3,533										
5.504	1	1	Allowance	Rest Room, Renovation	2025	to 25	5	3,300.00	3,300	3,300	0.3%						3,643										
				Pool Elements																							
6.200	2,800	2,800	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2026	8 to 12	6	1.50	4,200	4,200	0.5%							4,730									
6.300	1	1	Allowance	Cover	2035	8 to 15	15	4,500.00	4,500	4,500	0.4%																6,056
6.400	200	200	Linear Feet	Fence, Chain Link	2028	to 35	8	21.00	4,200	4,200	0.1%									4,921							
6.500	1	1	Allowance	Furniture	2021	to 12	1	2,500.00	2,500	2,500	0.3%		2,550										3,108				
6.600	2	1	Allowance	Mechanical Equipment, Phased	2025	to 15	5 to 12	4,000.00	4,000	8,000	0.6%						4,416							5,073			
6.800	1,500	1,500	Square Feet	Pool Finish, Plaster	2022	8 to 12	2	18.50	27,750	27,750	3.1%			28,871													
6.801	160	160	Linear Feet	Pool Finish, Tile	2022	8 to 12	2	35.50	5,680	5,680	0.6%			5,909													
6.900	1,500	1,500	Square Feet	Structure and Deck, Total Replacement	2028	to 60	8	180.00	270,000	270,000	8.5%									316,348							
				Anticipated Expenditures, By Year ($3,725,841 over 30 years)								33,840	27,434	96,308	39,849	51,543	39,580	24,437	64,605	382,340	174,602	158,591	54,388	138,704	408,359	385,519	418,132

RESERVE EXPENDITURES

Parkwood Village
Homeowners Association
Madison, Wisconsin

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Life Analysis, Years Remaining	Costs, $ Unit (2020)	Costs, $ Per Phase (2020)	Costs, $ Total (2020)	Percentage of Future Expenditures	16 2036	17 2037	18 2038	19 2039	20 2040	21 2041	22 2042	23 2043	24 2044	25 2045	26 2046	27 2047	28 2048	29 2049	30 2050
				Exterior Building Elements																						
1.120	15	3	Each	Balconies, Wood, Phased	2022	to 25	2 to 6	1,250.00	3,750	18,750	1.4%											6,275	6,401	6,529	6,659	6,793
1.210	17	1	Allowance	Foundations, Capital Repairs (2020 is Remaining)	2020	N/A	0	15,000.00	15,000	255,000	9.0%	20,592			21,852			23,190			24,609			26,115		
1.280	475	240	Squares	Roofs, Asphalt Shingles (2004 - 2007), Phased	2029	20 to 25	9 to 10	340.00	81,600	161,500	5.3%															
1.281	450	225	Squares	Roofs, Asphalt Shingles (2008 - 2009), Phased	2032	20 to 25	12 to 13	340.00	76,500	153,000	5.3%															
1.282	400	200	Squares	Roofs, Asphalt Shingles (2010 - 2012), Phased	2034	20 to 25	14 to 15	340.00	68,000	136,000	4.9%															
1.820	28,000	28,000	Square Feet	Walls, Masonry, Inspections and Repairs	2022	6 to 10	2	1.10	30,800	30,800	4.4%			43,990								51,541				
1.920	128,100	42,700	Square Feet	Walls, Vinyl Siding (Atop Insulation Board and T1-11), Phased	2033	35 to 40	13 to 15	5.25	224,175	672,525	23.8%															
				Property Site Elements																						
4.020	9,690	9,690	Square Yards	Asphalt Pavement, Crack Repair and Patch	2024	to 5	4	0.70	6,783	6,783	1.5%	9,312								10,910				11,809		
4.045	9,690	3,230	Square Yards	Asphalt Pavement, Total Replacement, Phased	2038	15 to 20	18 to 20	27.00	87,210	261,630	10.2%			124,557	127,049	129,589										
4.100	15	5	Each	Catch Basins, Inspections and Capital Repairs	2038	15 to 20	18 to 20	850.00	4,250	12,750	0.5%			6,070	6,191	6,315										
4.140	10,900	545	Square Feet	Concrete Sidewalks, Partial	2024	to 65	4 to 30+	13.00	7,085	141,700	1.9%	9,726				10,528				11,396				12,335		
4.170	96	5	Each	Concrete Stoops, Partial	2024	to 65	4 to 30+	2,000.00	10,000	192,000	2.6%	13,728				14,860				16,085				17,410		
4.285	100	100	Linear Feet	Fence, Wood, Grand Canyon Drive	2025	15 to 20	5	32.00	3,200	3,200	0.2%					4,755										
4.286	41	14	Each	Fences, Wood, Patios, 2012-2020, Phased	2037	to 25	17 to 21	2,250.00	30,758	92,250	3.6%		43,068		44,808		46,618									
4.287	55	18	Each	Fences, Wood, Patios, Remaining, Phased	2027	to 25	7 to 11	2,250.00	41,243	123,750	4.0%															
4.288	96	48	Each	Fences, Wood, Patios, Staining, Phased	2021	5 to 8	1 to 2	400.00	19,200	38,400	3.6%	15,023						12,170	12,413						19,435	19,823
4.560	1	1	Allowance	Light Poles and Fixtures (Including Building Mounted)	2023	to 25	3	18,800.00	18,800	18,800	1.4%												32,089			
4.650	1	1	Allowance	Pipes, Subsurface Utilities	2024	to 85+	4	5,000.00	5,000	5,000	1.3%	6,864				7,430				8,042				8,705		
4.760	170	170	Square Feet	Retaining Wall, Timber	2035	15 to 20	15	18.00	3,060	3,060	0.1%															
				Clubhouse Elements																						
5.400	1	1	Each	Air Handling Unit, Furnace	2030	15 to 20	10	2,700.00	2,700	2,700	0.2%													4,701		
5.501	40	40	Square Yards	Floor Coverings, Laminate	2025	18 to 25	5	85.00	3,400	3,400	0.2%					5,052										
5.502	1	1	Allowance	Kitchenette	2025	18 to 25	5	3,200.00	3,200	3,200	0.2%										5,250					
5.504	1	1	Allowance	Rest Room, Renovation	2025	to 25	5	3,300.00	3,300	3,300	0.3%													5,745		
				Pool Elements																						
6.200	2,800	2,800	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2026	8 to 12	6	1.50	4,200	4,200	0.5%	5,766										7,028				
6.300	1	1	Allowance	Cover	2035	8 to 15	15	4,500.00	4,500	4,500	0.4%															8,151
6.400	200	200	Linear Feet	Fence, Chain Link	2028	to 35	8	21.00	4,200	4,200	0.1%															
6.500	1	1	Allowance	Furniture	2021	to 12	1	2,500.00	2,500	2,500	0.3%						3,789									
6.600	2	1	Allowance	Mechanical Equipment, Phased	2025	to 15	5 to 12	4,000.00	4,000	8,000	0.6%				5,827							6,694				
6.800	1,500	1,500	Square Feet	Pool Finish, Plaster	2022	8 to 12	2	18.50	27,750	27,750	3.1%			39,634										48,313		
6.801	160	160	Linear Feet	Pool Finish, Tile	2022	8 to 12	2	35.50	5,680	5,680	0.6%			8,112										9,889		
6.900	1,500	1,500	Square Feet	Structure and Deck, Total Replacement	2028	to 60	8	180.00	270,000	270,000	8.5%															
				Anticipated Expenditures, By Year ($3,725,841 over 30 years)								81,011	43,068	222,363	205,727	178,529	50,407	35,360	12,413	46,433	29,859	71,538	38,490	151,551	26,094	34,767

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS
Parkwood Village
Homeowners Association
Madison, Wisconsin

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Reserves at Beginning of Year	*(Note 1)*	73,115	72,101	146,932	165,323	252,646	341,064	454,347	595,914	701,622	492,432	493,447	513,969	642,863	691,838	474,002	280,865
Total Recommended Reserve Contributions	*(Note 2)*	32,609	101,284	113,300	125,300	137,300	149,300	161,300	164,500	167,800	171,200	174,600	178,100	181,700	185,300	189,000	192,800
Estimated Interest Earned, During Year	*(Note 3)*	217	981	1,399	1,872	2,660	3,563	4,705	5,813	5,349	4,417	4,513	5,182	5,979	5,223	3,382	1,514
Anticipated Expenditures, By Year		(33,840)	(27,434)	(96,308)	(39,849)	(51,543)	(39,580)	(24,437)	(64,605)	(382,340)	(174,602)	(158,591)	(54,388)	(138,704)	(408,359)	(385,519)	(418,132)
Anticipated Reserves at Year End		$72,101	$146,932	$165,323	$252,646	$341,064	$454,347	$595,914	$701,622	$492,432	$493,447	$513,969	$642,863	$691,838	$474,002	$280,865	$57,047
																	(NOTE 5)

(continued)

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

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Reserves at Beginning of Year	57,047	116,814	218,046	143,000	86,903	60,636	165,844	290,227	441,993	564,168	707,405	813,380	956,921	991,700	1,156,429
Total Recommended Reserve Contributions	140,000	142,800	145,700	148,600	151,600	154,600	157,700	160,900	164,100	167,400	170,700	174,100	177,600	181,200	184,800
Estimated Interest Earned, During Year	779	1,500	1,617	1,030	661	1,015	2,043	3,280	4,507	5,696	6,813	7,931	8,730	9,623	11,083
Anticipated Expenditures, By Year	(81,011)	(43,068)	(222,363)	(205,727)	(178,529)	(50,407)	(35,360)	(12,413)	(46,433)	(29,859)	(71,538)	(38,490)	(151,551)	(26,094)	(34,767)
Anticipated Reserves at Year End	$116,814	$218,046	$143,000	$86,903	$60,636	$165,844	$290,227	$441,993	$564,168	$707,405	$813,380	$956,921	$991,700	$1,156,429	$1,317,545
					(NOTE 5)										*(NOTE 4)*

Explanatory Notes:

1) Year 2020 starting reserves are as of August 31, 2020; FY2020 starts January 1, 2020 and ends December 31, 2020.
2) Reserve Contributions for 2020 are the remaining budgeted 4 months; 2021 is budgeted; 2022 is the first year of recommended contributions.
3) 0.9% is the estimated annual rate of return on invested reserves; 2020 is a partial year of interest earned.
4) Accumulated year 2050 ending reserves consider the need to fund for replacement of the pavement, roofs and gutters and downspouts shortly after 2050, and the age, size, overall condition and complexity of the property.
5) Threshold Funding Years (reserve balance at critical point).

*Refer to the Reserve Expenditures pages
for the full list of reserve elements

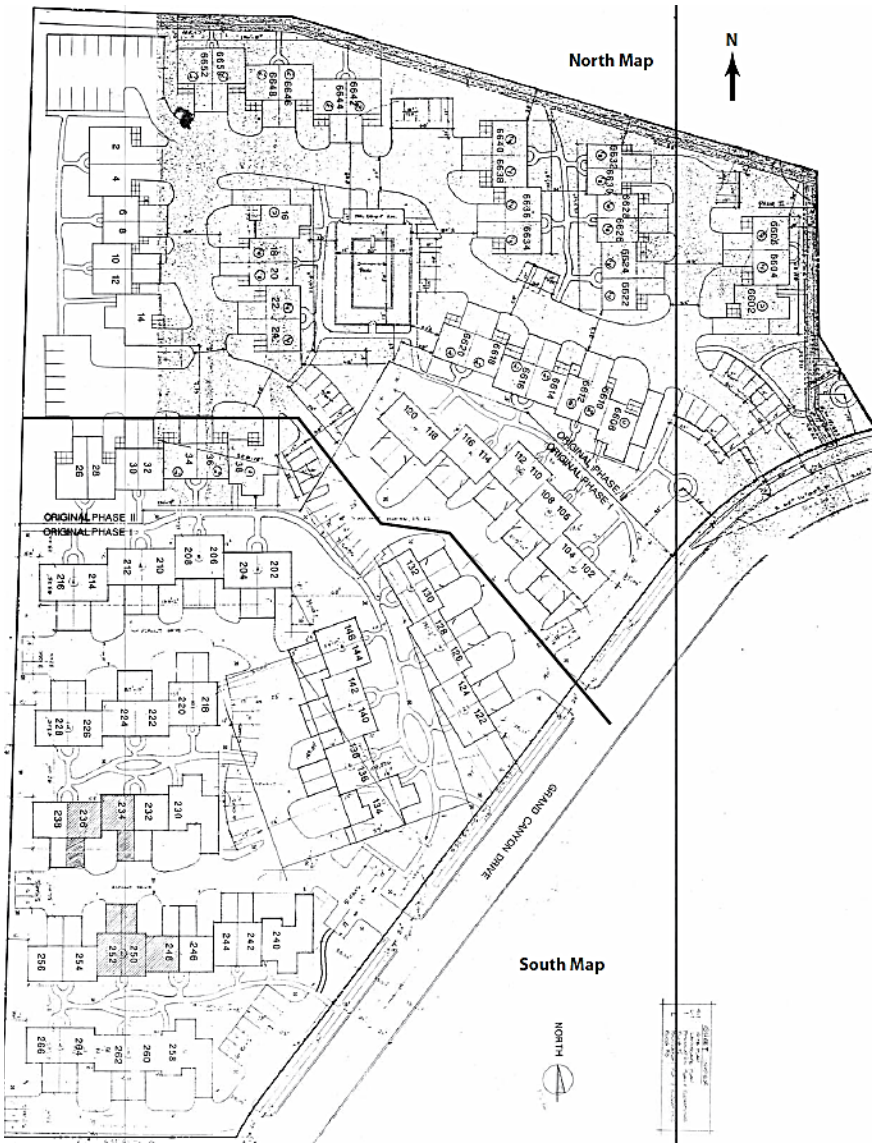
FIVE-YEAR OUTLOOK

Parkwood Village
Homeowners Association
Madison, Wisconsin

Line Item	Reserve Component Inventory	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025
	Exterior Building Elements						
1.120	Balconies, Wood, Phased			3,902	3,980	4,059	4,140
1.210	Foundations, Capital Repairs (2020 is Remaining)	33,840	15,300	15,606	15,918	16,236	16,561
1.820	Walls, Masonry, Inspections and Repairs			32,044			
	Property Site Elements						
4.020	Asphalt Pavement, Crack Repair and Patch					7,342	
4.140	Concrete Sidewalks, Partial					7,669	
4.170	Concrete Stoops, Partial					10,825	
4.285	Fence, Wood, Grand Canyon Drive						3,533
4.288	Fences, Wood, Patios, Staining, Phased		9,584	9,976			
4.560	Light Poles and Fixtures (Including Building Mounted)				19,951		
4.650	Pipes, Subsurface Utilities					5,412	
	Clubhouse Elements						
5.501	Floor Coverings, Laminate						3,754
5.502	Kitchenette						3,533
5.504	Rest Room, Renovation						3,643
	Pool Elements						
6.500	Furniture		2,550				
6.600	Mechanical Equipment, Phased						4,416
6.800	Pool Finish, Plaster			28,871			
6.801	Pool Finish, Tile			5,909			
	Anticipated Expenditures, By Year ($3,725,841 over 30 years)	33,840	27,434	96,308	39,849	51,543	39,580

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*.



Site map provided by Management

Exterior Building Elements

Front elevation

Rear elevation

Side elevation

Balconies, Wood

Line Item: 1.120

Quantity: 15 wood balconies which comprise a total of 480 square feet

History: One was repaired and painted in 2020, and the Association plans to repair and paint the rest over a period of five years at approximately $3,750 per event.

Condition: Fair overall condition with detached components, weathered wood and paint deterioration evident

Typical balcony overview

Paint finish deterioration (Unit 120 shown)

Recently replaced balcony (Unit 122 shown)

Paint finish deterioration (Unit 130 shown)

Paint finish deterioration (Unit 212 shown)

Useful Life: Up to 25 years with proper maintenance.

Component Detail Notes: Balcony construction includes the following:

- Wood railings with vertical pickets
- Wood cantilevered frames

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost is based on information provided by the Association. Our cost for interim repairs includes replacement of the deck boards and partial replacement of deteriorated wood components. Proper maintenance should include the following activities funded through the operating budget:

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

Foundations, Capital Repairs

Line Item: 1.210

History: Parkwood Village is responsible for 80 of the 96 foundations. Individual unit owners are responsible for the remaining 16 foundations. Management informs us the Association has been conducting capital repairs at the foundations of the buildings at the perimeter at the property. These repairs have historically included installing steel brackets and the addition of piers from within the basements. By the end of 2020, the Association plans to spend approximately $50,000 in related work ($17,000 in deposits has been paid). There is $15,000 to $18,000 allocated for stabilization work each year from 2021-2030 and $19,000 plus inflation every three years from 2033-2049. This represents a total of approximately $303,000 allocated to stabilization work from 2021 to 2049. Parkwood plans to continue installing foundation resistance piers under the advice and recommendation of a structural engineer.

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 Items: 1.240 and 1.241 *(Occurs beyond study, we include for informational purposes.)*

Quantity: Approximately 9,500 linear feet of aluminum five-inch seamless gutters and two-inch by three-inch downspouts

History: Installed in approximately 1998 to 2000

Condition: Fair overall with deflection, fastener rust, leakage at seams and dented sections evident

Flashing kicker at garage (Unit 6652 shown)

Previous repairs (Unit 2 shown)

Dent on downspout (Unit 14 shown)

Rusted fasteners indicate old age (Unit 14 shown)

Downspout discharge on roof

Repairs on downspout (Unit 34 shown)

Damaged downspout brace (Unit 208 shown)

Gutter overflow evidence on vinyl siding (Unit 8 shown)

Useful Life: 20- to 30-years and potentially beyond with on-going maintenance. We are informed that over the past several years a majority of the nail in type gutter hangers have been replace with screw in type hangers. The condition of the seamless aluminum gutters will be inspected annually with likely replacement occurring during the next shingle replacement cycle (approximately 35 to 40 years).

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

Expenditure Detail Notes: We recommend that the Association conduct interim repairs and replacements through the operating as necessary. Future updates to this Study will determine the need to include related reserve expenditures.

Roofs, Asphalt Shingles

Line Items: 1.280 through 1.282

Quantity: Approximately 1,325 *squares*[1] overall. See table below for age and quantity breakdown (data per Management):

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

Location	Quantity (Squares)	Year(s) of Replacement
2	13	2011
4	13	2011
6	12	2009
8	12	2009
10	12	2008
12	12	2008
14	19	2007
16	19	2006
18	12	2009
20	12	2009
22	13	2009
24	13	2009
26	13	2011
28	13	2011
30	12	2011
32	12	2011
34	13	2006
36	13	2006
38	19	2008
102	13	2007
104	13	2007
106	12	2007
108	12	2007
110	12	2007
112	12	2007
114	12	2007
116	12	2007
118	13	2004
120	13	2004
122	13	2007, 2009
124	13	2007, 2009
126	13	2007, 2010
128	13	2007, 2010
130	13	2011

Location	Quantity (Squares)	Year(s) of Replacement
132	13	2011
134	18	2009
136	12	2011, 2012
138	11	2011, 2012
140	13	2009
142	16	2009
144	12	2010
146	11	2010
202	13	2009
204	13	2009
206	12	2004, 2012
208	11	2004, 2012
210	13	2012
212	13	2012
214	13	2012
216	13	2012
218	11	2009
220	12	2009
222	13	2005
224	13	2005
226	13	2005
228	13	2005
230	18	2010
232	13	2011
238	12	2009
240	18	2007
242	11	2007, 2011
244	12	2007, 2011
246	16	2011
254	12	2009
256	13	2009
258	18	2006
260	13	2006
262	13	2006

Location	Quantity (Squares	Year(s) of Replacement
264	13	2004
266	13	2004
6602	18	2010
6604	13	2010
6606	13	2010
6608	18	2007
6610	11	2007
6612	12	2007
6614	13	2007
6616	13	2007
6618	13	2007
6620	13	2007
6622	13	2008
6624	13	2007, 2008
6626	11	2008
6628	12	2008
6630	11	2012
6632	12	2012
6634	13	2006
6636	13	2006
6638	13	2006
6640	13	2006
6642	13	2011
6644	13	2011
6646	13	2007, 2011
6648	13	2007, 2011
6650	13	2010
6652	13	2010

Two years indicate front and rear roof replacements

Condition: Fair to poor overall with cupped, organic growth, weathered and granular loss shingles evident from our visual inspection from the ground. Management reports a limited history of ice dams. Management informs us about construction defects involving the soffit vents. The exterior of the soffit is perforated aluminum for ventilation, however plywood lines the interior. Reportedly insufficient holes were drilled into the existing plywood may increase the risk for ice dams.

Organic growth on roof (Unit 6616 shown)

Isolated shingle lift (Unit 36 shown)

Three tab shingles (Unit 264 shown)

Shingle lifts (Unit 264 shown)

Closed half weave valley and low pitch slope, typical

Open valley with w-flashing (Unit 214 shown)

Useful Life: 20- to 25-years

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

- Laminate shingles with the exception of Unit 264 and 256 which have three-tab shingles
- Boston style ridge caps
- Lead boot flashing at waste pipes
- Soffit and ridge vents
- Metal drip edge
- Open valleys with metal W flashing and enclosed half weaved valleys

Insulation and ventilation are two major components of a sloped roof system. Together, proper insulation and ventilation help to control attic moisture and maintain an energy efficient building. Both insulation and ventilation prevent moisture buildup which can cause wood rot, mold and mildew growth, warp sheathing, deteriorate shingles, and eventually damage building interiors. Sufficient insulation helps to minimize the quantity of moisture that enters the attic spaces and adequate ventilation helps to remove any moisture that enters the attic spaces. These two roof system components also help to reduce the amount of energy that is required to heat and cool a building. Proper attic insulation minimizes heat gain and heat loss between the residential living spaces and attic spaces. This reduces energy consumption year-round. Proper attic ventilation removes excessive heat from attic spaces that can radiate into residential living spaces and cause air conditioners to work harder. Properly installed attic insulation and ventilation work together to maximize the useful life of sloped roof systems.

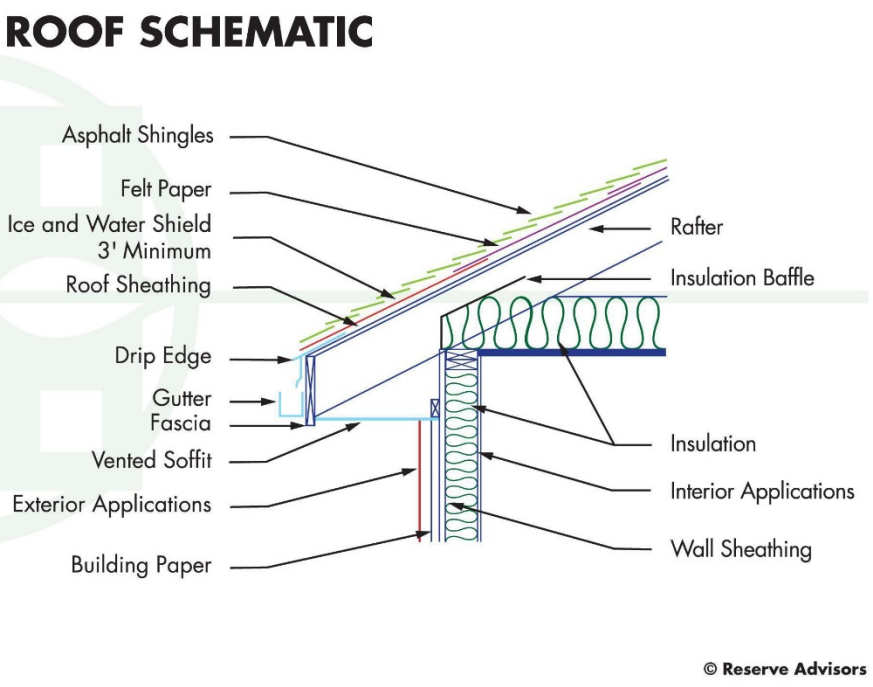
In addition to moisture control and energy conservation, proper attic insulation and ventilation are essential components to prevent the formation of ice dams. Ice dams occur when warm air accumulates at the peak of an attic while the roof eaves remain cold. Warm air from the attic melts the snow at the ridge of the roof and the water runs down the slope of the roof. At the cold roof eaves, the water refreezes and forms a buildup of snow and ice. This buildup often traps water that can prematurely deteriorate asphalt shingles and ultimately seep under the shingles and cause water damage to the roof deck and building interiors. Proper insulation minimizes the amount of heat that enters attic spaces in the winter and adequate ventilation helps to remove any heat that enters the attic spaces. Together, these components prevent ice dams with a cold roof deck that melts snow and ice evenly.

The vents should be clear of debris and not blocked from above by attic insulation. If the soffit vents are blocked from above, installation of polystyrene vent spaces or baffles between the roof joists at these locations can ensure proper ventilation.

Certain characteristics of condition govern the times of replacement. Replacement of an asphalt shingle roof becomes necessary when there are multiple or recurring leaks and when the shingles begin to cup, curl and lift. These conditions are indications that the asphalt shingle roof is near the end of its useful life. Even if the shingles are largely watertight, the infiltration of water in one area can lead to permanent damage to the underlying roof sheathing. This type of deterioration requires replacement of saturated sections of sheathing and greatly increases the cost of roof replacement. Roof leaks may occur from interrelated roof system components, i.e., flashings. Therefore, the warranty period, if any, on the asphalt shingles, may exceed the useful life of the roof system.

Warranties are an indication of product quality and are not a product guarantee. Asphalt shingle product warranties vary from 20- to 50-years and beyond. However, the scope is usually limited to only the material cost of the shingles as caused by manufacturing defects. Warranties may cover defects such as thermal splitting, granule loss, cupping, and curling. Labor cost is rarely included in the remedy so if roof materials fail, the labor to tear off and install new shingles is extra. Other limitations of warranties are exclusions for "incidental and consequential" damages resulting from age, hurricanes, hail storms, ice dams, severe winds, tornadoes, earthquakes, etc. There are some warranties which offer no dollar limit for replacement at an additional cost (effectively an insurance policy) but again these warranties also have limits and may not cover all damages other than a product defect. We recommend a review of the manufacturers' warranties as part of the evaluation of competing proposals to replace a roof system. This evaluation should identify the current costs of remedy if the roof were to fail in the near future. A comparison of the costs of remedy to the total replacement cost will assist in judging the merits of the warranties.

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



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.

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

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

Walls, Masonry

Line Item: 1.820

Quantity: Approximately 28,000 square feet of the exterior walls

History: Repairs last conducted in 2020

Condition: Good to fair overall with the following evident:

- Extensive previous repairs evident
- Efflorescence is not visible
- Lintels exhibit rust jacking (cracks in the masonry due to rusting and expanding of the lintel steel)
- Masonry exhibits cracks, cracks are systemic at units with foundation settlement evident
- Masonry exhibits spalls
- Mortar deterioration is evident
- Mortar joints are tooled
- Weeps and flashing at lintels are not visible

Repairs and mortar gaps evident (Unit 2 shown)

Organic growth (Unit 6634 shown)

Rusted lintel (Unit 6634 shown)

Mortar deterioration (Unit 6614 shown)

Rust at lintel (Unit 18 shown)

Mortar repairs and deterioration (Unit 146 shown)

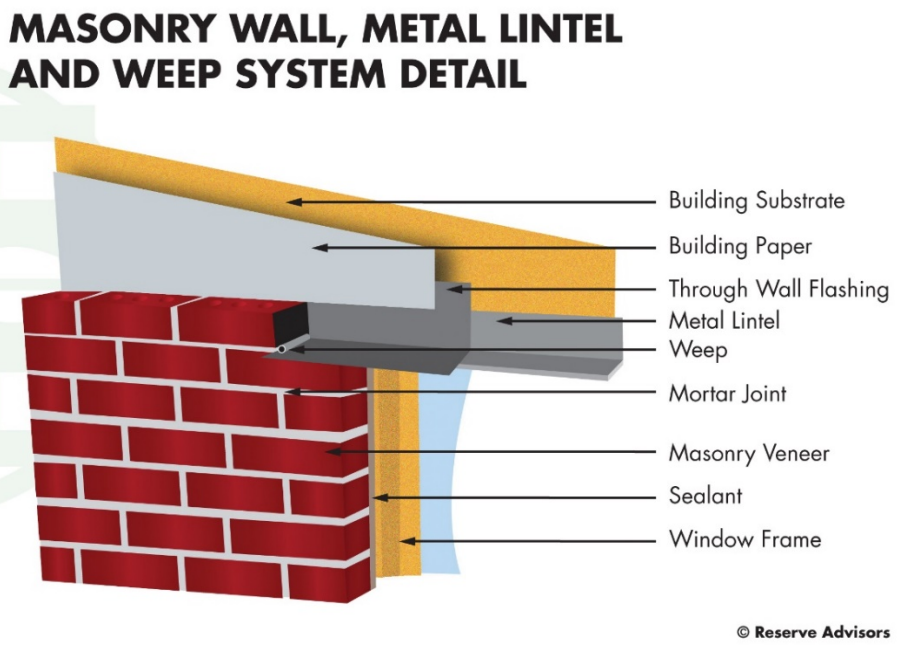
Step cracks (Unit 142 shown)

Mortar repair and developing step cracks (Unit 142 shown)

Masonry disintegration

Useful Life: We advise a complete inspection of the masonry and related masonry repairs 6- to 10-years to forestall deterioration.

Component Detail Notes: We recommend an inspection and repair of the lintels as necessary. Lintels are structural supports or beams above windows and doors. Fatigued lintels also allow the direct penetration of storm water into the wall assembly. These inspections should locate areas of rust on the lintels and cracks or other structural damage to the walls around lintels. The contractor should remove any areas of rust, prime and paint these lintels. Paint protects and maximizes the remaining useful life of the lintels and therefore the exterior wall systems. Structural damage can eventually lead to costly replacements of lintels and surrounding wall systems. The following diagram details a typical metal lintel and weep system and may not reflect the actual configuration at Parkwood Village:



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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost includes the following activities:

- Complete inspection of the masonry
- Repointing of up to five percent (5%) of the masonry
- Replacement of a limited amount of the masonry (The exact amount of area in need of replacement will be discretionary based on the actual future conditions and the desired appearance.)

Walls, Siding, Vinyl

Line Item: 1.920

Quantity: Approximately 128,100 square feet of the exterior walls. This quantity includes soffit and fascia.

History: The vinyl siding was installed atop ½" insulation nailed over the original T1-11 plywood siding, from approximately 1990 to 1992. The Association plans to leave the original plywood siding and insulation board in place at the time of vinyl siding replacement.

Condition: Fair overall with warped and damaged and loose sections evident

Exposed insulation (Unit 2 shown)

Vinyl trim damage (Unit 14 shown)

Damage on vinyl siding

Mismatching colors (Unit 34 shown)

Siding repair and triple J-channel (Unit 214 shown)

Loose boards (Unit 214 shown)

Loose siding boards (Unit 34 shown)

Siding and flashing repair

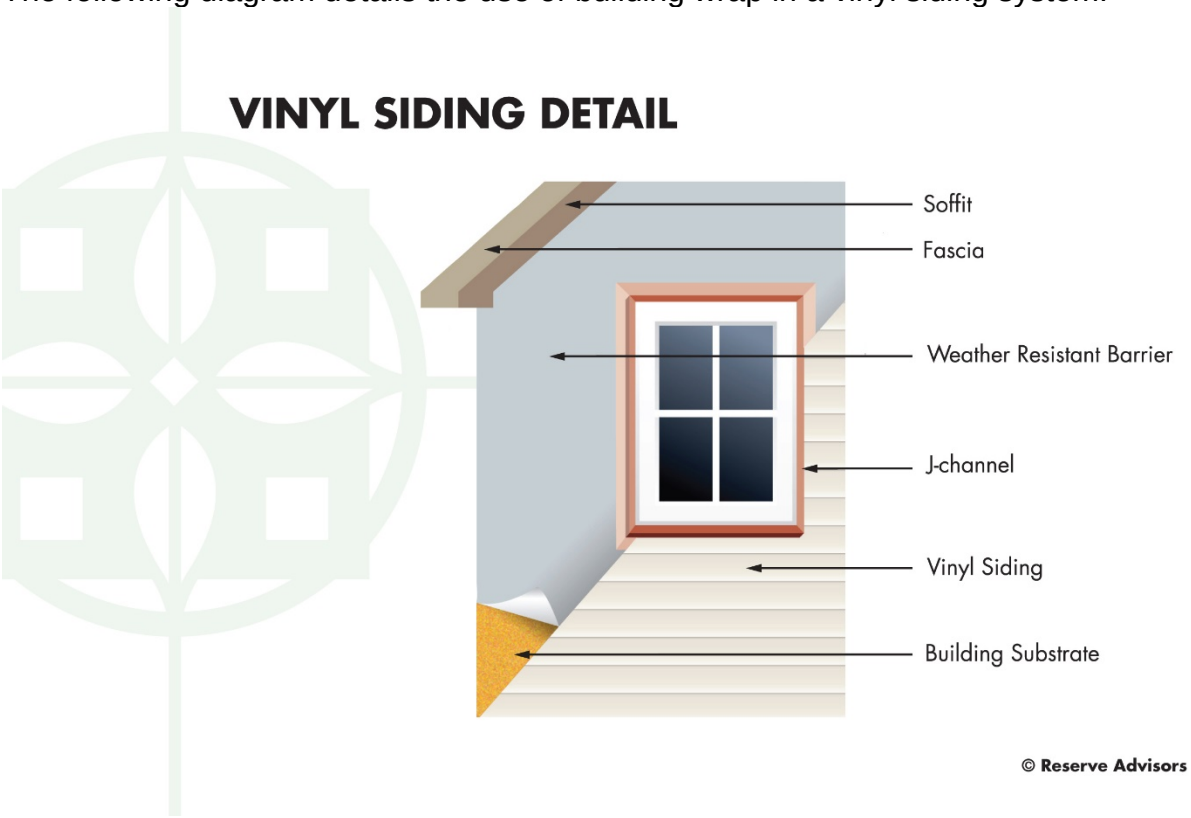
Popped nails at fascia (Unit 114 shown)

Useful Life: From 35- to 40-years

Component Detail Notes: The siding at Parkwood Village consists of the following:

- Clapboard double four-inch profile
- J-channel trim at window and door perimeters, and other penetrations
- Water-vapor permeable building paper does not exist

The following diagram details the use of building wrap in a vinyl siding system:



The lack of water-vapor permeable building paper underneath the siding can result in premature loosening of the siding fasteners from water damage to the substrate

sheathing. Therefore, the Association should anticipate a decreased useful life due to the lack of water proofing beneath the 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. Our cost includes replacement of the vinyl siding and installation of building wrap.

Property Site Elements

Asphalt Pavement, Crack Repair and Patch

Line Item: 4.020

Quantity: Approximately 9,690 square yards

Condition: Good overall

Useful Life: Up to five years

Priority/Criticality: Per Board discretion

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

Asphalt Pavement, Repaving

Line Item: 4.045

Quantity: Approximately 9,690 square yards of streets, parking areas and driveways throughout the community.

History: Repaved between 2018 and 2020

Condition: Good overall with only isolated raveling evident

Overview

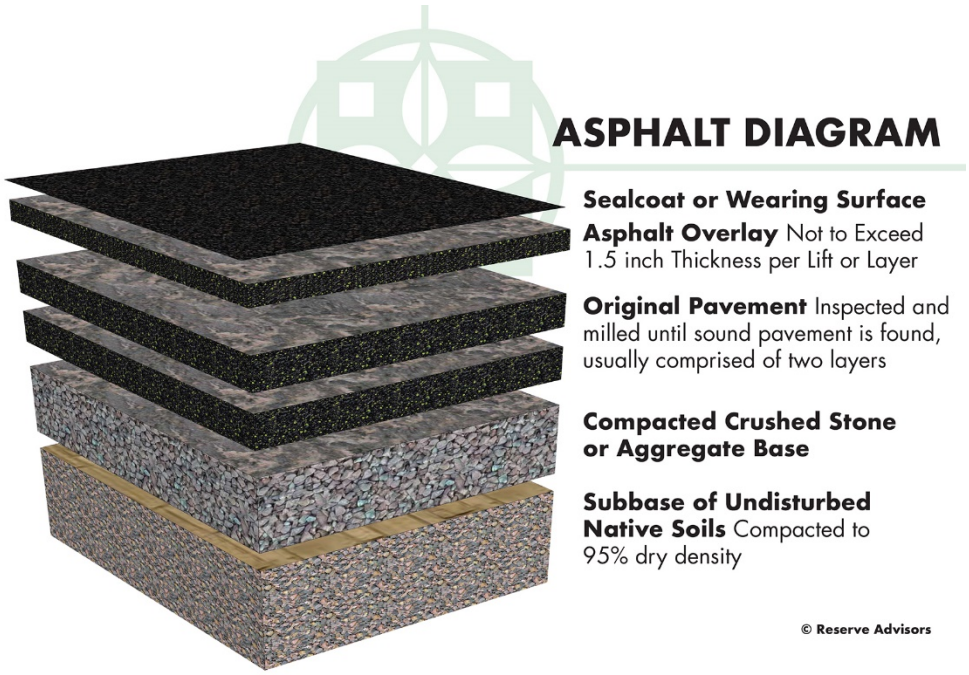
Overview

Raveling spot

Raveling spot

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

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



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

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 is based on information provided by the Association.

Catch Basins

Line Item: 4.100

Quantity: Approximately 15 catch basins[2]

History: Re-set and repaired in coordination with the near term repaving event. One catch basin was added during the repaving event

Condition: Good overall without settlement visually apparent

Newly installed catch basin

Existing catch basin and concrete collar

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 Sidewalks

Line Item: 4.140

Quantity: Approximately 10,900 square feet

[2] We utilize the terminology catch basin to refer to all storm water collection structures including curb inlets.

History: The Association has spent substantially on concrete flatwork repairs: $30,000 in 2019, and $10,000 in 2020 per Management.

Condition: Good overall with isolated cracks, settlement and trip hazards evident

Typical sidewalk overview in between units

Mud jacking signs evident

Recently replaced sidewalk

Settlement and trip hazard

Repaired crack

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

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 5,450 square feet of concrete sidewalks, or fifty percent (50%) of the total, will require replacement during the next 30 years.

Concrete Stoops

Line Item: 4.170

Quantity: 96 stoops

Condition: Good to fair overall with systemic settlement at the units with foundation issues evident

Settlement (Unit 144 shown)

Settlement (Unit 6614 shown)

Crack repairs due to settlement (Unit 104 shown)

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

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend the Association plan for replacement of up to 50 stoops, or approximately fifty-two percent (52.1%) of the total, during the next 30 years.

Fences, Wood

Line Items: 4.285 through 4.288

Quantity: Approximately 100 linear feet of fence along Grand Canyon Drive and approximately 3,090 linear feet of fence at the rear of each individual unit.

History: The fence along Grand Canyon Drive was installed in 1999 and its posts were replaced in 2016 for the cost of $3,150. The 41 rear patio fences have been replaced over the past eight years, with two fences replaced in 2020. There are 55 fences that remain to be replaced within the next 12 years. At the same time, the Association stained 10 fences in 2020 and plans to stain 45 more within the next two years. All work related to fences has been done with in-house labor, per Management.

Condition: Good to fair overall condition with leaning sections and wood rot evident

Weathered wood (Unit 2 shown)

Recently replaced fence with red cedar wood (Unit 164 shown)

Stained fenced with wood rot (Unit 120 shown)

Grand Canyon fence overview

Leaning sections at the Grand Canyon fence

Galvanized steel post reinforcement

Useful Life: 15- to 20-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. The Association should anticipate periodic partial replacements due to the non-uniform nature of wood deterioration. Along with these partial replacements, the Association should apply periodic paint applications as needed and fund these activities through the operating budget.

Light Poles and Fixtures

Line Item: 4.560

Quantity: Six metal poles with light fixtures and eight building mounted fixtures

Condition: Fair overall

Typical light fixture

Damaged base cladding

Wall mounted light fixture

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; however, Management informs us the pipes are beginning to age.

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. At this time we do not anticipate replacement of continuous lengths of subsurface utility pipes, however, Management expressed a possible need for a contingency allowance. We recommend the Association budget for repairs to isolated occurrences of breached utilities. Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, Parkwood Village 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.

Retaining Wall, Timber

Line Item: 4.760

Quantity: Approximately 170 square feet along Great Canyon Drive.

History: Replaced in 2015 with in-house labor

Condition: Good overall with no significant deterioration evident

Timber retaining wall

Useful Life: 15- to 20-years

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

- Annually:

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

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Note, price reflects in-house labor.

Clubhouse Elements

Clubhouse rear elevation

Clubhouse interior overview

Air Handling Unit, Furnace

Line Item: 5.400

Quantity: One gas-fired furnace

History: Replaced in 2019

Condition: Reported in good condition without operational deficiencies

Furnace

Useful Life: 15- to 20-years

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:
  - Change or clean air filters as needed
  - Inspect base pan, cabinet and clear obstructions as necessary
- Annually:
  - Clean fan assembly, inspect fan drive system and controls
  - Inspect and clean accessible ductwork, pilot assembly and burners as needed
  - Check fan belt alignment and tension

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our estimate of cost includes replacement of the evaporator coils.

Floor Coverings, Laminate

Line Item: 5.501

Quantity: Approximately 40 square yards at the main room

History: Management informs us the wood laminate flooring was installed in 2011

Condition: Fair overall with gaps at seams

Gaps at seams

Gaps at seams

Useful Life: 18- 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.

Kitchenette

Line Item: 5.502

History: Components are of unknown age with the exception of the fridge, sink and counters which were added in 2012

Condition: Fair overall, reported in working condition; however, components seem dated.

Kitchenette

Useful Life: Renovation 18- to 25-years

Component Detail Notes: Components of the kitchen include:

- Appliances
- Cabinets and countertop
- Sink

Priority/Criticality: Per Board discretion

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

Rest Room

Line Item: 5.504

History: Components were replaced around 2012 as part of the overall clubhouse renovation

Condition: Good to fair overall

Toilet

Loose cover

Useful Life: 18- to 25-years

Component Detail Notes: Components include:

- Concrete floor coverings
- Paint wall coverings
- Paint ceiling finishes
- Light fixtures
- Plumbing fixtures

Priority/Criticality: Per Board discretion

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

Pool Elements

Covered pool overview

Concrete Deck

Line Item: 6.200

Quantity: 2,800 square feet

History: Last inspected and repaired in 2016

Condition: Good condition with hairline cracks evident

Hair line crack

Repaired cracks

Caulked joints

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

Component Detail Notes: We recommend the Association budget for the following:

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

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

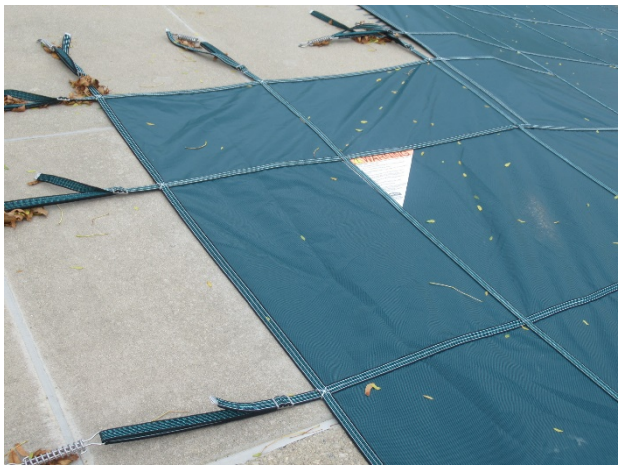
Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Cover, Vinyl

Line Item: 6.300

History: Replaced in 2020

Condition: Good condition (one week old at the time of inspection)



New cover

Useful Life: 8- to 15-years

Priority/Criticality: Per Board discretion

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

Fence, Chain Link

Line Item: 6.400

Quantity: Approximately 200 linear feet

History: Original

Condition: Fair overall condition with no visible deterioration evident

Fence overview

Useful Life: Up to 35 years

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

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

Priority/Criticality: Not recommended to defer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Management plans on coordinating replacement along with that of the pool structure.

Furniture

Line Item: 6.500

Quantity: The pool furniture includes the following, per Management:

- Chairs (18)
- Lounges (20)
- Ladders and life safety equipment

History: Various ages, Management plans near term replacement.

Condition: Fair to poor overall

Benches at the pool exhibit rust

Covered vinyl furniture

Useful Life: Up to 12 years

Priority/Criticality: Per Board discretion

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

Mechanical Equipment

Line Item: 6.600

Quantity: The mechanical equipment includes the following:

- Automatic chlorinator
- Controls
- Filter
- Boiler heater
- Interconnected pipe, fittings and valves
- Pumps
- Electrical panel
- Exhaust fan

History: Ages vary, the water heater was replaced in 2017, the filters and pump were replaced in 2011.

Condition: Reported satisfactory

Filters

Water heater

Motor housing, note rust

Valves

Useful Life: Up to 15 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. Failure of the pool mechanical equipment as a single event is unlikely. Therefore, we include replacement of up to fifty percent (50%) of the equipment per event. We consider interim replacement of motors and minor repairs as normal maintenance.

Pool Finishes, Plaster and Tile

Line Items: 6.800 and 6.801

Quantity: 1,500 square feet of plaster based on the horizontal surface area and approximately 170 linear feet of tile

History: The plaster finish is 2012 and the tile is original.

Condition: We were unable to inspect the pool due to the cover.

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

Component Detail Notes: Removal and replacement provides the opportunity to inspect the pool structure and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structure, we recommend the Association budget for the following:

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

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost is based on information provided by the Association. We recommend the Association budget for full tile replacement every other plaster replacement event.

Structure and Deck

Line Item: 6.900

Quantity: 1,500 square feet of horizontal surface area

History: Original, Management informs us concrete repairs were conducted in coordination with the previous plaster replacement

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

Useful Life: Up to 60 years

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

- Concrete deck
- Fences
- Pool structure
- Subsurface piping

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

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

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.

Parkwood Village 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 Unit Owners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

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

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

[1] Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".
[2] See Credentials for additional information on our use of published sources of cost data.

Wisconsin at an annual inflation rate[3]. 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 Parkwood Village 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.

[3] Derived from Marshall & Swift, historical costs and the Bureau of Labor Statistics.

6. CREDENTIALS

HISTORY AND DEPTH OF SERVICE

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

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

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

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

TOTAL STAFF INVOLVEMENT

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

OUR GOAL

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

VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

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

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

OLD TO NEW

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

HEATHER M. CHRISTENSEN, RS
Responsible Advisor

CURRENT CLIENT SERVICES

Heather M. Christensen, a Structural Engineer, is an Advisor for Reserve Advisors. Ms. Christensen is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. She also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. She is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services on townhomes, homeowner associations, planned unit developments and recreational associations. Ms. Christensen serves as the Quality Assurance Review Coordinator for all types of developments and has been with Reserve Advisors since 2011.

The following is a partial list of clients served by Heather Christensen demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.

Lawrence Square Townhomes Association - A townhome association in Chicago, Illinois with 30 units in four buildings, this development displays uniqueness with shaped EIFS, vinyl siding, masonry walls and flat roofs. These buildings are connected with two bridges at the second stories, overlooking individual garages and private asphalt parking and streets.

Lakelands Club Consolidated Homeowners Association - This planned unit development located in Plainfield, Illinois includes amenities shared by 85 residential units. Construction began in 2003 and includes a clubhouse, pool, lake, irrigation system, gates, fences and asphalt pavement streets and walking paths.

Windemere Place Condominium Association - A condominium association in Grosse Pointe Farms, Michigan located on the lake, this planned unit development includes 31 single family homes and lots. Windemere Place was built from 1982 to 1992 and includes older, historic elements. The development contains concrete flatwork, brick privacy walls, a pool and pool house.

3110 Wisconsin Condominium Association - This high rise condominium located in downtown Washington, DC comprises 30 units in a nine-story building. The two-story units comprise concrete balconies, and the unit owners share a common lobby, elevators, hallways, parking garage and parking lot.

Pembroke North Homeowners Association - Located in Wayne, Pennsylvania, this development contains 54 units in three LEED buildings. The building exteriors comprise flat membrane roofs, masonry siding and elevated garden plazas. The development contains a parking structure, asphalt pavement, finished interior lobbies and hallways, and a geothermal system.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Ms. Christensen attended the Milwaukee School of Engineering in Milwaukee (MSOE), Wisconsin where she attained her Master of Science degree in Structural Engineering and her Bachelor of Science degree in Architectural Engineering. She also worked for Computerized Structural Design, Inc. and Pierce Engineers where she worked on structural design projects for steel and concrete structures. Heather's involvement with Engineers Without Borders includes the design and construction of bridges and schools in Guatemala, where she serves as a structural engineering mentor to the MSOE student chapter.

EDUCATION

Milwaukee School of Engineering - M.S. Structural Engineering
Milwaukee School of Engineering - B.S. Architectural Engineering

PROFESSIONAL AFFILIATIONS

Engineer In Training (E.I.T.) Registration - Wisconsin
Reserve Specialist (RS) - Community Associations Institute
American Society of Civil Engineers - Associate Member

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

CURRENT CLIENT SERVICES

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

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

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

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

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

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

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

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

PRIOR RELEVANT EXPERIENCE

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

EDUCATION

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

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

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

RESOURCES

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

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

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

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

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

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

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

7. DEFINITIONS

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

Cash Flow Method - A method of calculating Reserve Contributions where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

Component Method - A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.

Current Cost of Replacement - That amount required today derived from the quantity of a *Reserve Component* and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current *local* market prices for *materials*, *labor* and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.

Fully Funded Balance - The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation.

Funding Goal (Threshold) - The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.

Future Cost of Replacement - *Reserve Expenditure* derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.

Long-Lived Property Component - Property component of Parkwood Village 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) Parkwood Village responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

Reserve Component Inventory - Line Items in ***Reserve Expenditures*** that identify a *Reserve Component*.

Reserve Contribution - An amount of money set aside or *Reserve Assessment* contributed to a *Reserve Fund* for future *Reserve Expenditures* to repair or replace *Reserve Components*.

Reserve Expenditure - Future Cost of Replacement of a Reserve Component.

Reserve Fund Status - The accumulated amount of reserves in dollars at a given point in time, i.e., at year end.

Reserve Funding Plan - The portion of the Reserve Study identifying the *Cash Flow Analysis* and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.

Reserve Study - A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

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

8. PROFESSIONAL SERVICE CONDITIONS

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

Our inspection and analysis of the subject property is limited to visual observations, is noninvasive and is not meant to nor does it include investigation into statutory, regulatory or code compliance. RA inspects sloped roofs from the ground and inspects flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. The report is based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in our report. The inspection is made by employees generally familiar with real estate and building construction but in the absence of invasive testing RA cannot opine on, nor is RA responsible for, the structural integrity of the property including its conformity to specific governmental code requirements for fire, building, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

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

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

Report - RA completes the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations and is deemed complete. RA, however, considers any additional information made available to us within 6 months of issuing the Report if a timely request for a revised Report is made. RA retains the right to withhold a revised Report if payment for services was not tendered in a timely manner. All information received by RA and all files, work papers or documents developed by RA during the course of the engagement shall remain the property of RA and may be used for whatever purpose it sees fit.

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

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

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

Payment Terms, Due Dates and Interest Charges - Retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court for the State of Wisconsin.