

Revised
FULL RESERVE STUDY
Champions Way
Homeowners Association, Inc.



South Bend, Indiana
Inspected - April 28, 2020
Revised - September 24, 2020



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Long-term thinking. Everyday commitment.

Champions Way Homeowners Association, Inc.
South Bend, Indiana

Dear Board of Directors of Champions Way Homeowners Association, Inc.:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Champions Way Homeowners Association, Inc. in South Bend, Indiana and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, April 28, 2020.

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

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Champions Way Homeowners Association, Inc. plan for a successful future.

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

Respectfully submitted on September 24, 2020 by

Reserve Advisors, LLC

Visual Inspection and Report by: Andrew K. McGowan, RS¹

Review by: Alan M. Ebert, RS, PRA², Director of Quality Assurance



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

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



Long-term thinking. Everyday commitment.

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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Champions Way Homeowners Association, Inc. (Champions Way)

Location: South Bend, Indiana

Reference: 182212

Property Basics: Champions Way Homeowners Association, Inc. is a townhome style development consisting of 62 units in nine buildings. The community was built from 2010 to 2015.

Reserve Components Identified: 22 Reserve Components.

Inspection Date: April 28, 2020.

Funding Goal: The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes this threshold funding year in 2035 due to replacement of the wing wall capstones. The Reserve Funding Plan recommends 2050 year end accumulated reserves of approximately \$746,800. We judge this amount of accumulated reserves in 2050 necessary to fund the likely replacement of the roofs after 2050. Future replacement costs beyond the next 30 years for the 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
- 0.15% average current annual rate of return on invested reserves
- 2.2% 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:

- \$176,421 as of February 29, 2020
- 2020 budgeted Reserve Contributions of \$68,448
- A potential deficit in reserves might occur by 2032 based upon continuation of the most recent annual reserve contribution of \$68,448 and the identified Reserve Expenditures.

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:

- Parapet wall repairs to remediate water infiltration
- Wing wall repairs to limit deterioration and prevent the need for a full rebuild of the entire walls
- Paint finish applications and replacement of sealants to maintain aesthetic appeal and prevent water infiltration

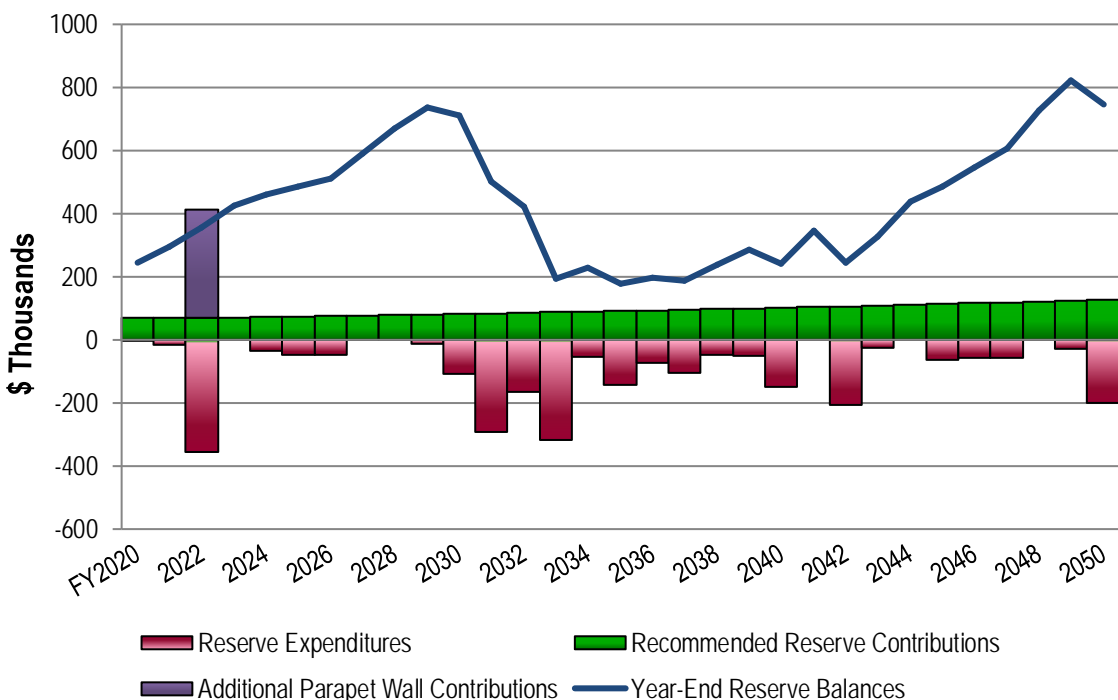


Recommended Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Stable contributions of \$68,450 in 2021 and 2022
- Inflationary increases through 2050, the limit of this study's Cash Flow Analysis
- Additional Parapet Wall Reserve Contributions of \$344,784 in 2022
- 2021 Reserve Contribution of \$68,450 is equivalent to an average quarterly contribution of \$276.01 per unit owner.
- Additional Parapet Wall Reserve Contributions of \$344,784 is equivalent to an average quarterly contribution of \$1,390 per unit owner
- The Association may ascribe the actual contributions and assessments per owner based upon percent ownership, as defined by the Association's governing documents.

Champions Way
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2021	68,450	295,689	2031	83,250	501,975	2041	103,550	344,390
2022	413,234	353,659	2032	85,100	422,397	2042	105,850	243,920
2023	69,950	424,192	2033	86,950	193,440	2043	108,200	326,104
2024	71,500	460,501	2034	88,850	229,174	2044	110,600	437,276
2025	73,050	485,910	2035	90,800	178,422	2045	113,050	486,433
2026	74,650	511,895	2036	92,800	196,960	2046	115,550	544,885
2027	76,300	589,020	2037	94,850	188,404	2047	118,100	604,704
2028	78,000	667,962	2038	96,950	237,050	2048	120,700	726,402
2029	79,700	735,942	2039	99,100	286,849	2049	123,350	820,781
2030	81,450	710,015	2040	101,300	240,402	2050	126,050	746,782





2. RESERVE STUDY REPORT

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

Champions Way Homeowners Association, Inc.

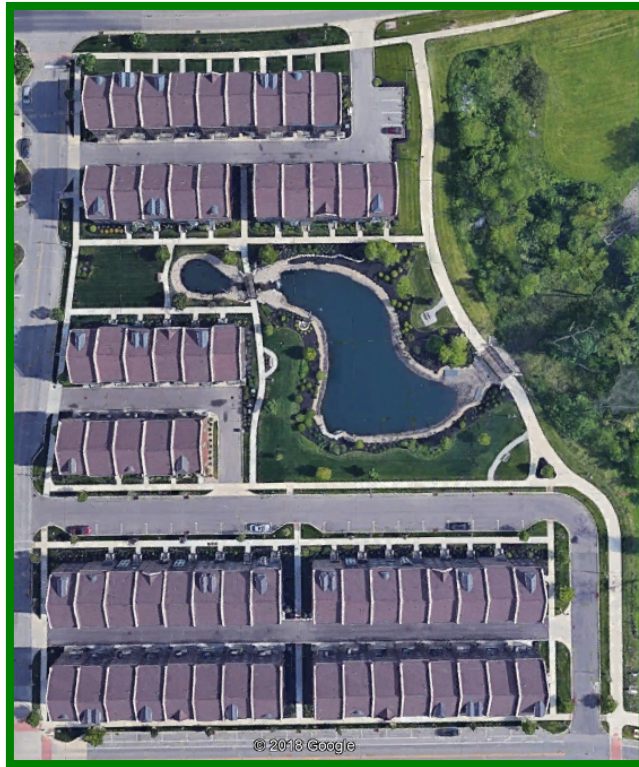
South Bend, Indiana

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, April 28, 2020.

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 and the Board. These classes of property include:

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

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:

- Champions Way responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

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

- Electrical Systems, Common
- Foundations
- Pipes, Fire Suppression System
- Pipes, Subsurface Utilities
- Structural Frames
- Walls, Siding and Trim, Composite and Fiber Cement, Full Replacement

The operating budget provides money for the repair and replacement of certain Reserve Components. The Association may develop independent criteria for use of operating and reserve funds. For purposes of calculating appropriate Reserve Contributions, we identify the following list of Operating Budget Funded Repairs and Replacements:

- General Maintenance to the Common Elements
- Expenditures less than \$3,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Asphalt Pavement, Crack Repair, Patch and Seal Coat
- Fire Suppression Rooms, Control Panels, Interim Replacements
- Fire Suppression Rooms, Doors, Metal (We assume replacement as needed in lieu of an aggregate replacement of all fire suppression room doors as a single event.)
- Fire Suppression Rooms, Unit Heaters
- Fire Suppression Rooms, Valves, Small Diameter (We assume replacement as needed in lieu of an aggregate replacement of all small diameter valves as a single event.)
- Irrigation System, Controls and Maintenance
- Landscape
- Paint Finishes, Touch Up
- 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:

- Balconies (Including Juliet railings) (The Association conducts paint finish applications of the balcony soffit and fascia trim.)

We note systematic soffit deflection and isolated stains. These conditions are likely caused by water accumulation which may lead to premature deterioration of the frame and the need for replacement if not properly maintained. We recommend Unit Owners conduct periodic inspections and remediation to ensure water drains properly through the soffit. We estimate costs of full balcony soffit replacement and necessary frame repairs at approximately \$1,000 per balcony. However, the exact cost may vary based on the exact scope of frame deterioration and coordination of repairs.



Typical deflected soffit



Stains

- Electrical Systems
- Garage Aprons and Heating, Ventilating and Air Conditioning (HVAC) Pads
- Garage Doors
- HVAC Units
- Interiors
- Pipes (Within Units)
- Roofs, Decking and Trusses
- Windows and Doors

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

- Pond Area (Including benches, bridges and surrounding sidewalks)
- Sidewalks, Along Streets
- Street Lights
- Street Systems

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
- Predicted reserves based on current funding level

Five-Year Outlook

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

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

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

RESERVE EXPENDITURES

Champions Way
Homeowners Association, Inc.
South Bend, Indiana

Explanatory Notes:

- 1) **2.2%** 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		Costs, \$			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	
						Useful	Remaining	Unit (2020)	Per Phase (2020)	Total (2020)																		
Exterior Building Elements																												
1.240	3,400	3,400	Linear Feet	Gutters, Downspouts and Scuppers, Aluminum, Buildings 1-5 (Includes Heat Tracers)	2031	15 to 20	11	17.50	59,500	59,500	2.8%																75,592	
1.241	3,700	3,700	Linear Feet	Gutters, Downspouts and Scuppers, Aluminum, Buildings 6-9 (Includes Heat Tracers)	2033	15 to 20	13	17.50	64,750	64,750	3.2%																85,921	
1.255	2	1	Allowance	Life Safety System, Control Panels and Emergency Devices, Phased	2036	to 25	16 to 17	20,500.00	20,500	41,000	2.2%																	
1.260	257	257	Each	Light Fixtures	2036	to 25	16	125.00	32,125	32,125	1.7%																	
1.271	1	1	Allowance	Parapet Walls, Coping and Flashing, Water Remediation	2022	N/A	2	265,000.00	265,000	265,000	10.4%		276,788															
1.272	62	62	Units	Parapet Walls, Siding, Fiber Cement, Paint Finishes and Repairs	2022	to 10	2	1,050.00	65,100	65,100	9.7%		67,996												84,526			
1.280	305	305	Squares	Roofs, Asphalt Shingles, Buildings 1-5	2031	15 to 20	11	440.00	134,200	134,200	6.4%															170,495		
1.281	320	320	Squares	Roofs, Asphalt Shingles, Buildings 6-9	2033	15 to 20	13	440.00	140,800	140,800	7.0%															186,838		
1.460	175	88	Each	Roofs, Metal, Phased	2040	to 35	20 to 22	720.00	63,000	126,000	7.5%																	
1.540	21,200	2,355	Linear Feet	Sealants, Windows, Doors, Dissimilar Materials and Control Joints, Phased (Excludes Parapets and Wing Walls)	2024	to 20	4 to 30+	4.30	10,128	91,160	6.5%				11,049	11,292	11,540									12,867	13,150	13,439
1.815	890	890	Linear Feet	Walls, Masonry, Wing Walls, Capstone Replacement	2035	N/A	15	115.00	102,350	102,350	5.3%																141,857	
1.816	4,200	2,100	Square Feet	Walls, Masonry, Wing Walls, Inspections and Repairs, Initial, Phased	2021	to 4	1 to 2	5.00	10,500	21,000	2.7%	10,731	10,967				11,707	11,965			12,772	13,053						
1.817	4,200	4,200	Square Feet	Walls, Masonry, Wing Walls, Inspections and Repairs, Subsequent Capstone Replacement	2045	to 10	25	1.10	4,620	4,620	0.3%																	
1.820	98,000	49,000	Square Feet	Walls, Masonry, Remaining, Inspections and Repairs (Excludes Parapets), Phased	2032	8 to 12	12 to 14	0.60	29,400	58,800	2.9%															38,173	39,871	
1.830	62	21	Units	Walls, Siding and Trim, Composite, Paint Finishes, Phased	2024	6 to 8	4 to 6	1,100.00	22,737	68,200	14.5%				24,805	25,351	25,908								28,886	29,522	30,171	
Property Site Elements																												
4.045	1,950	1,950	Square Yards	Asphalt Pavement, Total Replacement	2030	15 to 20	10	35.00	68,250	68,250	8.1%															84,842		
4.100	10	10	Each	Catch Basins, Inspections and Capital Repairs	2030	15 to 20	10	850.00	8,500	8,500	1.0%															10,566		
4.140	3,250	245	Square Feet	Concrete Sidewalks, Partial (2021 is Adjusted)	2021	to 65	1 to 30+	14.00	3,430	45,500	1.0%	6,140														4,358		
4.150	61	6	Each	Concrete Stairs, Partial	2037	to 65	17 to 30+	2,100.00	12,600	128,100	2.3%																	
4.420	32	16	Zones	Irrigation System, Partial	2050	to 40+	30 to 30+	1,750.00	28,000	56,000	2.0%																	
4.600	5	5	Each	Mailbox Stations	2034	to 25	14	2,000.00	10,000	10,000	0.5%																13,562	
4.731	650	650	Linear Feet	Railings, Aluminum, Stairs	2037	to 25	17	54.00	35,100	35,100	1.9%																	
		1	Allowance	Reserve Study (2020 is Remaining)	2020	N/A	0	1,425	1,425	1,425	0.1%	1,425																
Anticipated Expenditures, By Year (\$2,668,980 over 30 years)												1,425	16,871	355,751	0	35,854	48,350	49,413	0	0	12,772	108,461	292,198	165,371	316,369	53,433	141,857	

RESERVE EXPENDITURES

Champions Way
Homeowners Association, Inc.
South Bend, Indiana

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			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
						Useful	Remaining	Unit (2020)	Per Phase (2020)	Total (2020)																
<u>Exterior Building Elements</u>																										
1.240	3,400	3,400	Linear Feet	Gutters, Downspouts and Scuppers, Aluminum, Buildings 1-5 (Includes Heat Tracers)	2031	15 to 20	11	17.50	59,500	59,500	2.8%															
1.241	3,700	3,700	Linear Feet	Gutters, Downspouts and Scuppers, Aluminum, Buildings 6-9 (Includes Heat Tracers)	2033	15 to 20	13	17.50	64,750	64,750	3.2%															
1.255	2	1	Allowance	Life Safety System, Control Panels and Emergency Devices, Phased	2036	to 25	16 to 17	20,500.00	20,500	41,000	2.2%	29,038	29,677													
1.260	257	257	Each	Light Fixtures	2036	to 25	16	125.00	32,125	32,125	1.7%	45,505														
1.271	1	1	Allowance	Parapet Walls, Coping and Flashing, Water Remediation	2022	N/A	2	265,000.00	265,000	265,000	10.4%															
1.272	62	62	Units	Parapet Walls, Siding, Fiber Cement, Paint Finishes and Repairs	2022	to 10	2	1,050.00	65,100	65,100	9.7%							105,075								
1.280	305	305	Squares	Roofs, Asphalt Shingles, Buildings 1-5	2031	15 to 20	11	440.00	134,200	134,200	6.4%															
1.281	320	320	Squares	Roofs, Asphalt Shingles, Buildings 6-9	2033	15 to 20	13	440.00	140,800	140,800	7.0%															
1.460	175	88	Each	Roofs, Metal, Phased	2040	to 35	20 to 22	720.00	63,000	126,000	7.5%					97,355		101,686								
1.540	21,200	2,355	Linear Feet	Sealants, Windows, Doors, Dissimilar Materials and Control Joints, Phased (Excludes Parapets and Wing Walls)	2024	to 20	4 to 30+	4.30	10,128	91,160	6.5%			14,984	15,314	15,651					17,450	17,834	18,226			
1.815	890	890	Linear Feet	Walls, Masonry, Wing Walls, Capstone Replacement	2035	N/A	15	115.00	102,350	102,350	5.3%															
1.816	4,200	2,100	Square Feet	Walls, Masonry, Wing Walls, Inspections and Repairs, Initial, Phased	2021	to 4	1 to 2	5.00	10,500	21,000	2.7%															
1.817	4,200	4,200	Square Feet	Walls, Masonry, Wing Walls, Inspections and Repairs, Subsequent Capstone Replacement	2045	to 10	25	1.10	4,620	4,620	0.3%										7,960					
1.820	98,000	49,000	Square Feet	Walls, Masonry, Remaining, Inspections and Repairs (Excludes Parapets), Phased	2032	8 to 12	12 to 14	0.60	29,400	58,800	2.9%															
1.830	62	21	Units	Walls, Siding and Trim, Composite, Paint Finishes, Phased	2024	6 to 8	4 to 6	1,100.00	22,737	68,200	14.5%			33,639	34,380	35,136					39,175	40,037	40,917			
<u>Property Site Elements</u>																										
4.045	1,950	1,950	Square Yards	Asphalt Pavement, Total Replacement	2030	15 to 20	10	35.00	68,250	68,250	8.1%															131,108
4.100	10	10	Each	Catch Basins, Inspections and Capital Repairs	2030	15 to 20	10	850.00	8,500	8,500	1.0%															16,328
4.140	3,250	245	Square Feet	Concrete Sidewalks, Partial (2021 is Adjusted)	2021	to 65	1 to 30+	14.00	3,430	45,500	1.0%		4,966					5,658							6,447	
4.150	61	6	Each	Concrete Stairs, Partial	2037	to 65	17 to 30+	2,100.00	12,600	128,100	2.3%		18,240					20,785							23,684	
4.420	32	16	Zones	Irrigation System, Partial	2050	to 40+	30 to 30+	1,750.00	28,000	56,000	2.0%														53,788	
4.600	5	5	Each	Mailbox Stations	2034	to 25	14	2,000.00	10,000	10,000	0.5%															
4.731	650	650	Linear Feet	Railings, Aluminum, Stairs	2037	to 25	17	54.00	35,100	35,100	1.9%		50,813													
		1	Allowance	Reserve Study (2020 is Remaining)	2020	N/A	0	1,425	1,425	1,425	0.1%															
Anticipated Expenditures, By Year (\$2,668,980 over 30 years)												74,543	103,696	48,623	49,694	148,142	0	206,761	26,443	0	64,585	57,871	59,143	0	30,131	201,224

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS

Champions Way

Homeowners Association, Inc.

South Bend, Indiana

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)	176,421	243,706	295,689	353,659	424,192	460,501	485,910	511,895	589,020	667,962	735,942	710,015	501,975	422,397	193,440	229,174	
Plus Recommended Reserve Contributions	68,448	68,450	68,450	69,950	71,500	73,050	74,650	76,300	78,000	79,700	81,450	83,250	85,100	86,950	88,850	90,800	
Plus Additional Parapet Wall Contributions			344,784														
Total Recommended Reserve Contributions (Note 2)	68,448	68,450	413,234	69,950	71,500	73,050	74,650	76,300	78,000	79,700	81,450	83,250	85,100	86,950	88,850	90,800	
Plus Estimated Interest Earned, During Year (Note 3)	262	404	487	583	663	709	748	825	942	1,052	1,084	908	693	462	317	305	
Subtotal Anticipated Expenditures, By Year	(1,425)	(16,871)	(10,967)	0	(35,854)	(48,350)	(49,413)	0	0	(12,772)	(108,461)	(292,198)	(165,371)	(316,369)	(53,433)	(141,857)	
Near Term Parapet Wall Expenditures			(344,784)														
Less Total Expenditures	(1,425)	(16,871)	(355,751)	0	(35,854)	(48,350)	(49,413)	0	0	(12,772)	(108,461)	(292,198)	(165,371)	(316,369)	(53,433)	(141,857)	
Anticipated Reserves at Year End	\$243,706	\$295,689	\$353,659	\$424,192	\$460,501	\$485,910	\$511,895	\$589,020	\$667,962	\$735,942	\$710,015	\$501,975	\$422,397	\$193,440	\$229,174	\$178,422	
Predicted Reserves based on 2020 funding level of:	\$68,448	243,706	295,687	353,655	422,685	455,937	476,734	496,498	565,742	635,090	691,760	652,755	429,816	333,465	85,858	101,013	27,700

(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	178,422	196,960	188,404	237,050	286,849	240,402	344,390	243,920	326,104	437,276	486,433	544,885	604,704	726,402	820,781
Total Recommended Reserve Contributions	92,800	94,850	96,950	99,100	101,300	103,550	105,850	108,200	110,600	113,050	115,550	118,100	120,700	123,350	126,050
Plus Estimated Interest Earned, During Year	281	289	319	393	395	438	441	427	572	692	773	862	998	1,160	1,175
Less Anticipated Expenditures, By Year	(74,543)	(103,696)	(48,623)	(49,694)	(148,142)	0	(206,761)	(26,443)	0	(64,585)	(57,871)	(59,143)	0	(30,131)	(201,224)
Anticipated Reserves at Year End	\$196,960	\$188,404	\$237,050	\$286,849	\$240,402	\$344,390	\$243,920	\$326,104	\$437,276	\$486,433	\$544,885	\$604,704	\$726,402	\$820,781	\$746,782
Predicted Reserves based on 2020 funding level of:	\$68,448	21,642	(13,599)	6,220											

(NOTE 4)

Explanatory Notes:

- 1) Year 2020 starting reserves are as of February 29, 2020; FY2020 starts January 1, 2020 and ends December 31, 2020.
- 2) Reserve Contributions for 2020 are budgeted; 2021 is the first year of recommended contributions.
- 3) 0.15% 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 roofs shortly after 2050, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Year (reserve balance at critical point).

FIVE-YEAR OUTLOOK**Champions Way
Homeowners Association, Inc.**
South Bend, Indiana

Line Item	Reserve Component Inventory	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025
<u>Exterior Building Elements</u>							
1.271	Parapet Walls, Coping and Flashing, Water Remediation			276,788			
1.272	Parapet Walls, Siding, Fiber Cement, Paint Finishes and Repairs			67,996			
1.540	Sealants, Windows, Doors, Dissimilar Materials and Control Joints, Phased (Excludes Parapets and Wing Walls)					11,049	11,292
1.816	Walls, Masonry, Wing Walls, Inspections and Repairs, Initial, Phased		10,731	10,967			11,707
1.830	Walls, Siding and Trim, Composite, Paint Finishes, Phased					24,805	25,351
<u>Property Site Elements</u>							
4.140	Concrete Sidewalks, Partial (2021 is Adjusted)		6,140				
Reserve Study (2020 is Remaining)		1,425					
Anticipated Expenditures, By Year (\$2,668,980 over 30 years)		1,425	16,871	355,751	0	35,854	48,350

4. RESERVE COMPONENT DETAIL

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

Exterior Building Elements



Front elevation



Side elevation



Rear elevation

Gutters, Downspouts and Scuppers, Aluminum

Line Items: 1.240 and 1.241

Quantity: Approximately 3,400 linear feet of aluminum six-inch gutters and three-inch by four-inch downspouts at Buildings 1 through 5. In addition, Champions Way maintains approximately 3,700 linear feet of gutters and downspouts at Buildings 6 through 9.

History: Original

Condition: Good to fair overall with isolated damage and overflow evident



Disconnected downspout section at front of Unit 16



Evidence of overflow at front of Unit 23



Loose heat tracer at Unit 51



Additional sealants and likely overflow issue at Unit 35

Useful Life: 15- to 20-years

Component Detail Notes: The useful life of gutters and downspouts coincides with that of the asphalt shingle roofs. Coordinated replacement will result in the most

economical unit price and minimize the possibility of damage to other roof components as compared to separate replacements.

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

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

Life Safety System

Line Item: 1.255

Quantity: The life safety system at Champions Way includes the following components:

- Audio/visual fixtures
- *Silent Knight* control panels
- Piping, Common (Long-lived with an anticipated useful life of up to 65 years and beyond)
- Wiring

History: Original with isolated audio/visual fixture replacements

Conditions: Reported satisfactory



Control panel



Audio/visual fixture

Useful Life: Up to 25 years with interim replacements funded through the operating budget

Preventative Maintenance Notes: We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. In accordance with *NFPA 72* (National Fire Alarm and Signaling Code) 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 age of the components,

operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
 - Inspect and test all components and devices
 - Test backup batteries
- As-needed:
 - Ensure clear line of access to components such as pull stations

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. Changes in technology or building codes may make a replacement desirable prior to the end of the functional life. Our estimate of future cost considers only that amount necessary to duplicate the same functionality. Local codes or ordinances at the actual time of replacement may require a betterment as compared to the existing system. A betterment could result in a higher, but at this time unknown, cost of replacement.

Light Fixtures

Line Item: 1.260

Quantity: 257 exterior wall mounted aluminum light fixtures accent the balconies, front entries and garages

History: Primarily original

Condition: The condition of the light fixtures varies. We note isolated finish deterioration.



Varying age of light fixtures



Finish deterioration at Unit 61

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.

Parapet Walls

Line Items: 1.271 and 1.272

Quantity: The parapet walls are comprised of the following approximate quantities of materials:

- 13,200 square feet of fiber cement siding
- 4,000 linear feet of aluminum coping and capstones
- 2,000 square feet of masonry
- Limited quantity of sealants

History: The Association conducted invasive parapet wall inspections and repairs of approximately \$48,927 in 2019. These inspections noted varying levels of construction and flashing. Deficiencies in the construction have caused water infiltration of the attics. The Association plans to conduct paint finish applications of the fiber cement siding in 2021.

Condition: Fair to poor overall with systematic opportunity for water infiltration evident. These sources of water infiltration include:

- Damage
- Masonry deterioration
- Siding offset
- Potential lack of flashing

Due to the visual, non-invasive nature of this Reserve Study, we were unable to verify the precise conditions of flashing and interior damage at all locations. Our analysis is based on our visual inspection of current conditions and the assessment conducted by *KIL Architecture*.



Gap at Unit 33



Siding installed offset from parapet wall at Unit 45 (opportunity for water infiltration)



Damage at Unit 86



Discoloration at Unit 94



Coping overhang and sealant repair at Unit 21

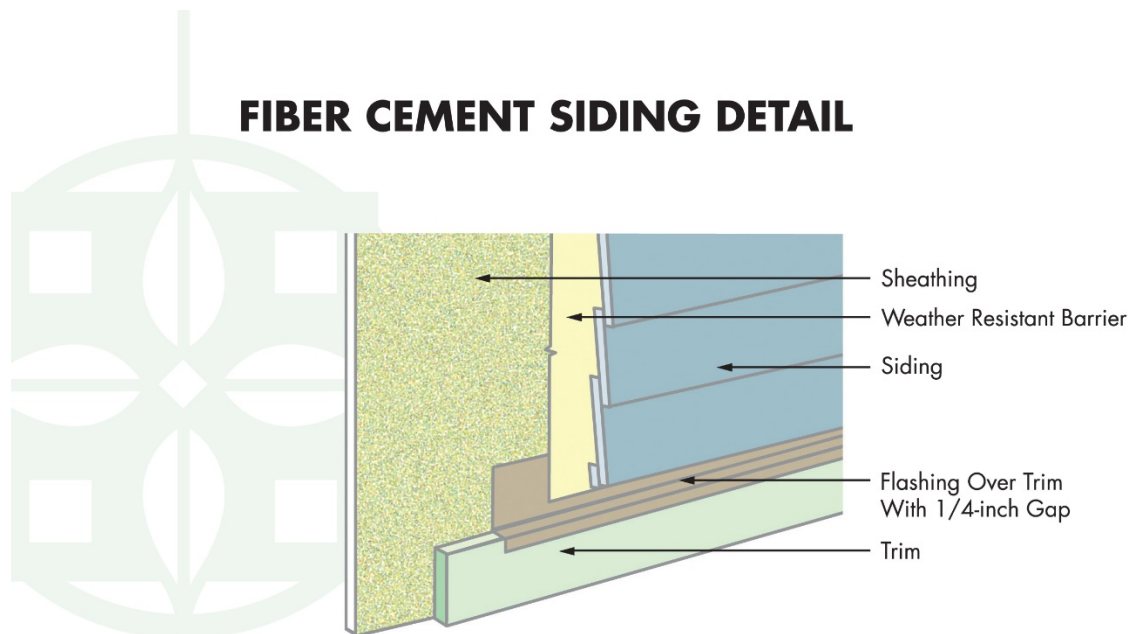
Useful Life: We recommend the Association anticipate a useful life of up to 10 years for paint finish applications of the fiber cement siding at the parapet walls. We include a one-time allowance for water remediation of the coping and flashing.

Component Detail Notes: Fiber cement siding is made from a combination of cement, sand and cellulose fiber. Manufacturing of the siding utilizes a steam curing process to increase strength and dimensional stability. The siding is also manufactured in layers forming a sheet of desired thickness. A wood grain imprint is typically applied to the exposed surface. Fiber cement siding offers many advantages over other types of siding. These advantages include:

- Capable of withstanding salt spray and ultraviolet rays
- Dimensional stability (will not buckle or warp as easily as other materials)
- Paint applications last longer compared to wood siding
- Resistant to insects, birds and fire

The following diagram details a typical fiber cement siding system at the interface with other building components although it may not reflect the actual configuration at Champions Way:

FIBER CEMENT SIDING DETAIL



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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 anticipate the need to conduct additional flashing installation and replacement of the coping with aluminum by 2022. Deferral of replacement may result in additional water infiltration and damage.

Due to the likely need to remove the siding to install proper flashing and potential damage, we recommend the Association defer paint finish applications until the coping is replaced. We anticipate the following during each paint application cycle:

- Paint finish application
- Replacement of 400 square feet, or up to two percent (2%), of the siding (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever cracks, delamination and deterioration impair the ability of the material to prevent water infiltration.)
- Minor repairs of the coping and masonry

Roofs, Asphalt Shingles

Line Items: 1.280 and 1.281

Quantity: Approximately 305 *squares*¹ or asphalt shingle roofs at Buildings 1 through 5 and approximately 320 squares at Buildings 6 through 9

History: Original

Condition: Good to fair overall with isolated sheathing deflection and shingle lift evident. Management and the Board report a history of leaks due to parapet wall issues.



Sheathing deflection at Unit 24



Minor shingle lift at Unit 66

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



Raised shingles at Unit 53



Sheathing deflection at Unit 97

Useful Life: 15- to 20-years

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

- Laminate shingles
- Boston style ridge caps
- Rubber seal with plastic base boot flashing at waste pipes
- Soffit, gable and ridge vents

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.

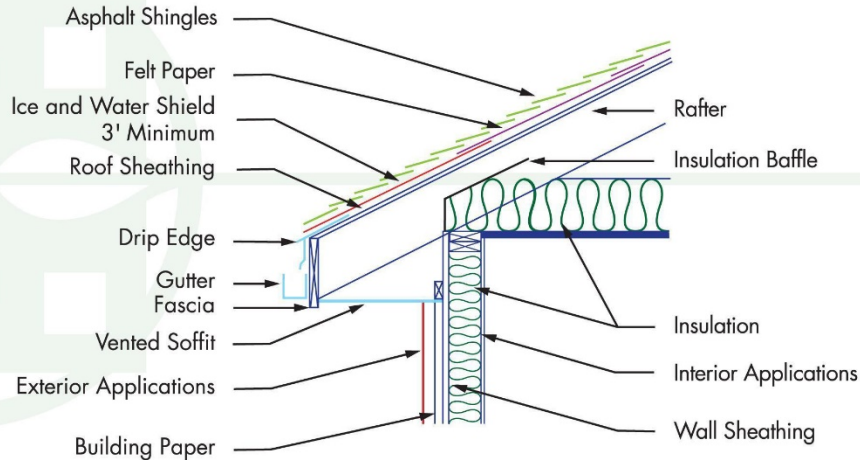
The vents should be clear of debris and not blocked from above by attic insulation. If the soffit vents are blocked from above, installation of polystyrene vent spaces or baffles between the roof joists at these locations can ensure proper ventilation.

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 Champions Way:

ROOF SCHEMATIC



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

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

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

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

Roofs, Metal

Line Item: 1.460

Quantity: Approximately 175 metal roofs. This quantity includes approximately 500 linear feet of metal trim caps

History: Original

Condition: Good overall with no significant deterioration evident. Management and the Board do not report a history of leaks of the metal roofs.



Metal roof overview



Alternate roof overview

Useful Life: Up to 35 years

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

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

Sealants, Windows, Doors, Dissimilar Materials and Control Joints

Line Item: 1.540

Quantity: Approximately 21,200 linear feet of exterior sealants or *caulk*² at the windows, doors, dissimilar materials and control joints³. This quantity excludes sealants at the parapet walls and wing walls.

History: The Association conducted sealant replacement at the windows and doors in 2017 and 2018. We noted additional sealant replacement in progress during our inspection at Building 8.

Condition: Good to fair overall with isolated adhesive sealant failure evident. We note a lack of sealant along the fiber cement-composite joint at the front bays. We recommend the Association seal these areas to prevent water infiltration.

² The terms sealant and caulk are used interchangeably throughout this text and throughout the industry.

³ A control joint is a formed or sawed groove in a wall system that allows for thermal expansion and contraction of the building materials without damage.



Adhesive sealant failure at front of Unit 17



Lack of sealant at Unit 24



Control joint sealant in good condition



Overview of trim to masonry sealant

Useful Life: Up to 20 years

Component Detail Notes: The rate of deterioration of the sealants is not uniform due to the different exposures to sunlight and weather. The Association should anticipate gradual dispersed deterioration as the sealants age.

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 Champions Way replace up to eleven percent (11.1%), or 2,355 linear feet of joint sealant in conjunction with paint finish applications.

Walls, Masonry

Line Items: 1.815 through 1.820

Quantity: Champions Way maintains the following approximate quantities of masonry:

- 890 linear feet of capstones at the front entry stairs
- 4,200 square feet of exposed masonry at the wing walls
- 98,000 square feet of masonry at the remaining exterior building surfaces. This quantity excludes the parapet walls.

History: The Association conducted repairs including brick replacement, sealer application and capstone resetting of the wing walls in 2017 and 2018.

Condition: The wing walls are in fair to poor condition with the following evident:

- Opportunity for water accumulation between the concrete stairs and wing walls. We recommend the Association apply sealant along these joints to prevent water infiltration. The Association should ensure dry conditions at the time of application.
- Undersized capstones which exacerbate deterioration and efflorescence. We recommend the Association conduct replacement of the capstones with larger capstones with underside grooves to deter water accumulation. We include associated costs in Line Item, “**Walls, Masonry, Wing Walls, Capstone Replacement**”.
- Systematic spalled masonry

The remaining masonry is in good to fair overall condition with the following evident:

- Bird infiltration due to gaps at Unit 19
- Isolated cracks
- Isolated mortar deterioration
- Mortar joints are tooled
- Weeps are visible



Opportunity for water accumulation between stairs and wing wall masonry (note deterioration)



Wing wall mortar cracks at Unit 15 (note undersized capstones)



Spalled masonry at Unit 14



Missing mortar at Unit 12



Capstone cracks and efflorescence at Unit 23



Spalled masonry and deterioration at Unit 24



Efflorescence at Unit 46



Mortar deterioration likely exacerbated by water runoff at Unit 16



Gap at Unit 19 (noted bird infiltration)



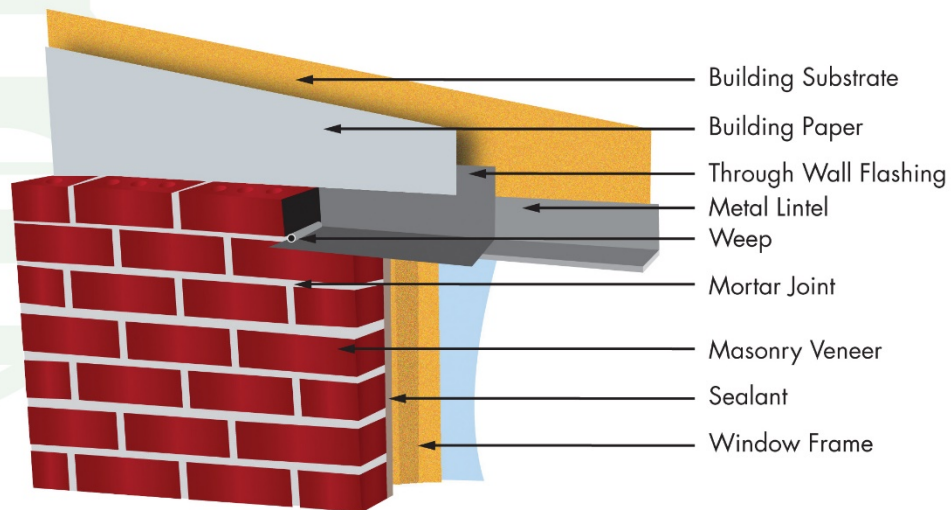
Mortar crack at Unit 19

Useful Life:

- We include a one-time allowance for capstone replacement of the wing walls
- We recommend the Association conduct the initial repairs of the wing walls as described below every four years.
- Subsequent to capstone replacement, we recommend the Association anticipate the need to conduct wing wall repairs as described below up to every 10 years.
- We recommend the Association anticipate the need to conduct inspections and repairs of the remaining masonry every 8- to 12-years.

Component Detail Notes: We recommend an inspection, repair and replacement of the steel lintels. 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. We include costs of paint finish applications of the steel lintels in Line Item, “**Walls, Siding and Trim, Composite**”. 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 Champions Way:

MASONRY WALL, METAL LINTEL AND WEEP SYSTEM DETAIL



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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Based on other priorities such as parapet wall repairs, we include initial repairs to defer full capstone replacement. However, we recommend the Association accelerate capstone replacement if funds become available. Deferral of capstone replacement will result in increased long-term costs to the Association. Deferral of repairs will likely lead to the need to completely rebuild the wing walls.

Our cost for capstone replacement includes:

- Replacement with oversized capstones with underside grooves and flashing
- Shoring of the overhead roof structures
- Masonry repairs of the wing walls as needed

Our cost for initial wing wall repairs includes:

- Sealer application of the entirety of the brick masonry
- Repointing of up to five percent (5%) of the masonry
- Replacement of up to two percent (1.5%) of the masonry
- Installation/replacement of up to twenty percent (20%) of approximately 2,900 linear feet of sealants along the stairs and under the capstones
- Resetting and repairs of the coping as needed

Our cost for subsequent wing wall repairs includes:

- Repointing of up to four percent (4%) of the masonry
- Replacement of a limited amount of the masonry

Our cost for repairs of the remaining masonry includes the following activities:

- Complete inspection of the masonry
- Repointing of up to two percent (2%) of the masonry
- Replacement of a limited amount of the masonry

Walls, Siding and Trim, Paint Finishes

Line Item: 1.830

Quantity: Approximately 19,600 square feet of composite trim and fiber cement siding. This quantity excludes the fiber cement siding at the parapet walls. In addition, the Association conducts paint finish applications of approximately 3,100 linear feet of steel lintels.

History: Last conducted between 2017 and 2019

Condition: Good to fair overall with isolated missing soffit, loose trim, deterioration and damage evident



Repair at Unit 52



Missing soffit at Unit 54



Loose trim at Unit 35



Deterioration and potential water infiltration at Unit 46



Paint coverage issue at front of Unit 32



Soffit damage at Unit 98

Useful Life: We recommend the Association anticipate a useful life of paint finish applications every six- to eight-years.

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

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

- Paint finish applications
- Replacement of up to three percent (3%), of the siding and trim (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever holes, cracks and deterioration impair the ability of the material to prevent water infiltration.)

Property Site Elements

Asphalt Pavement, Repaving

Line Item: 4.045

Quantity: Approximately 1,950 square yards

History: Original with seal coat applications and repairs conducted in 2017. Management and the Board inform us the Association will fund crack repair, patch and seal coat applications through the operating budget.

Condition: Fair overall with isolated deterioration, water accumulation and curb damage evident



Overview of access drive between Buildings 1, 2 and 3



Localized deterioration near Unit 32



Overview of access drive between Buildings 4 and 5 (note water accumulation)



Overview of access drive between Buildings 6 through 9 (note water accumulation)



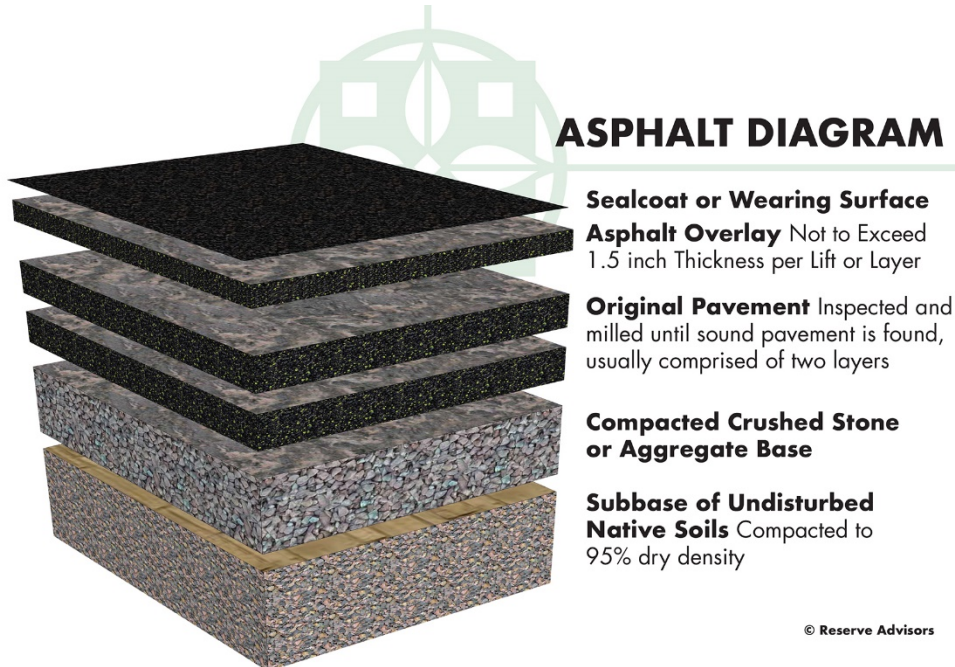
Curb damage near Unit 41



Curb damage near Unit 55

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 Champions Way:



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 Champions Way.

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. Due to the limited quantity of asphalt pavement, we recommend the Association conduct complete replacement of the pavement in lieu of phased replacements to result in the lowest economical unit cost. Our cost includes replacement of up to fifteen percent (15%) of the concrete curbs.

Catch Basins

Line Item: 4.100

Quantity: 10 each. This quantity excludes the drain in the concrete apron along the street.

History: Original

Condition: Good to fair overall with minor settlement near Unit 11



Settlement near Unit 11

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 3,250 square feet of concrete sidewalks, mailbox pads and aprons at the streets. Unit Owners maintain the garage aprons and HVAC pads.

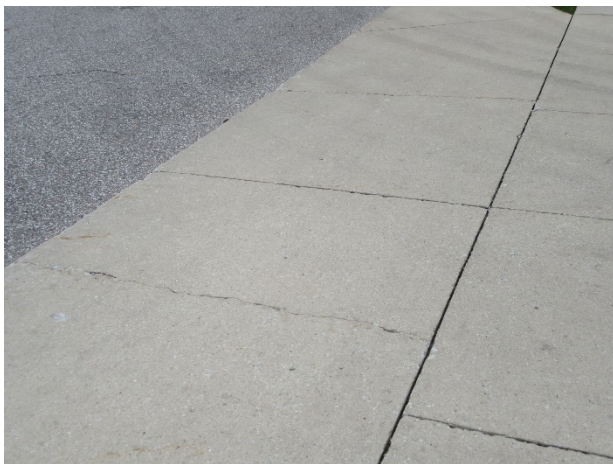
Condition: Good to fair overall with isolated cracks evident



Crack at Unit 33



Crack at Unit 92



Cracks near Unit 55



Cracks near Unit 98

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. Our initial expenditure includes replacement of the sidewalk near Unit 92 and apron near Unit 98. We estimate that up to 1,310 square feet of concrete sidewalks, mailbox pads and aprons at the streets or forty percent (40.3%) of the total, will require replacement during the next 30 years. Our cost includes repairs to the drain at the apron along the street. Our timing is based on the conditions at the time of our inspection.

Concrete Stairs

Line Item: 4.150

Quantity: 61 sets of stairs

Condition: Good overall. The rate of deterioration may be affected by the frequency of repairs of the wing walls as noted in Line Item, "**Walls, Masonry**".



Stair overview

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 18 stairs, or approximately thirty percent (29.5%) of the total, will require replacement during the next 30 years. We defer initial replacements based on the conditions at the time of our inspection.

Irrigation System

Line Item: 4.420

Quantity: 32 zones with approximately 12 to 14 heads each and three controllers. Nine of these zones utilize a drip irrigation system.

History: Original

Condition: Reported satisfactory

Useful Life: Up to 40 years and beyond

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

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

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

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

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

Mailbox Stations

Line Item: 4.600

Quantity: Five stations

History: Original

Condition: Good to fair overall with isolated finish deterioration evident



Mailbox station overview



Minor finish deterioration near Unit 55

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.

Railings, Aluminum

Line Item: 4.731

Quantity: Approximately 650 linear feet at the front entry stairs

History: Original

Condition: Good to fair overall with isolated finish deterioration evident



Finish deterioration at Unit 66



Finish deterioration at Unit 17

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.

Reserve Study

Line Item: Last

Component Detail Notes: Champions Way will expend \$1,425 in reserve expenditures in 2020 for the remaining payment of this Reserve Study.

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.

Champions Way 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 quarterly 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 standards¹ set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level I Full Reserve Study." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

- The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan
- Local² costs of material, equipment and labor
- Current and future costs of replacement for the Reserve Components
- Costs of demolition as part of the cost of replacement
- Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in South Bend,

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.

Indiana at an annual inflation rate³. 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 Champions Way 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 principals are founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our principals is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and historical analyses are keys to determining accurate remaining useful life estimates of building components.

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

TOTAL STAFF INVOLVEMENT

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

OUR GOAL

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

VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

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

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

OLD TO NEW

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

ANDREW K. MCGOWAN, RS
Engineer

CURRENT CLIENT SERVICES

Andrew K. McGowan is a Mechanical Engineer and Advisor for **Reserve Advisors, LLC**. Mr. McGowan is responsible for the inspection and analysis of the condition of clients' property, recommending engineering solutions to prolong the lives of the components, forecasting capital expenditures for the repair and/or replacement of the property components, and preparation of technical reports on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports for midrise buildings, condominiums, townhomes and homeowner associations.



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

Cambridge-on-the-Lake Homeowners Association - A master association dating to the 1970s in Buffalo Grove, Illinois, this association is responsible for the amenities serving 392 apartment style units. These amenities include an indoor pool, exercise room, locker rooms, sauna, meeting room, billiard room, game room, and walkways around two large ponds often graced by swans.

Cotswolds Homeowners' Association is a development of 103 distinct unit styles in Northbrook, IL. The Association maintains all exterior building elements such as Dryvit siding, masonry siding, wood trim and asphalt shingle roof assemblies. The Association has transitioned from cedar shake roofs to asphalt shingles with potential changes in ownership responsibilities that have created needs for multiple funding plans and scenarios.

Council of Co-owners, Barclay Square, Inc. is a longstanding community dating to 1972. Covered parking garages, steel frame breezeways, exterior staircases and an interior club room make this a unique property in Williamsburg, Virginia.

Fairfax Manor Condominium Unit Owners Association, Inc. is located in Mentor, Ohio and was converted from apartments to condominiums in 1972. The buildings contain shared interior hallways with carpet, tile and mechanical equipment. Brick masonry, aluminum siding and vinyl siding adorn the buildings and carports to create a variety of maintenance and replacement needs.

Ross Bridge Neighborhood Association, Inc. is a continually developing designer community of almost 1,800 homes in 12 distinct subdivisions located in Hoover, Alabama. Multiple clubhouses, pools, playgrounds, a community fireplace, wiffle ball field as well as a neighboring golf course and restaurants ensure residents have all they could desire within walking distance of their home.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. McGowan attended The Ohio State University where he attained his Bachelor of Science degree in Mechanical Engineering. After graduation, he worked for one of the top cabinet manufacturers where he performed field visits with home construction contractors, such as *NVR, Inc.*, to determine reliable solutions to common quality issues.

EDUCATION

Ohio State University – B.S. Mechanical Engineering

PROFESSIONAL AFFILIATIONS

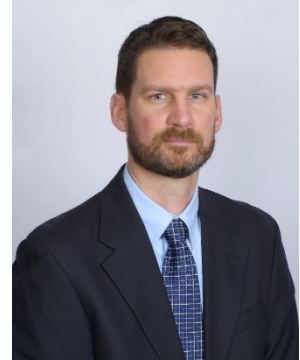
Reserve Specialist (RS) - Community Associations Institute

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

CURRENT CLIENT SERVICES

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

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



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

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

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

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

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

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

PRIOR RELEVANT EXPERIENCE

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

EDUCATION

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

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Professional Engineering License – Wisconsin, North Carolina, Illinois, Colorado

Reserve Specialist (RS) - Community Associations Institute

Professional Reserve Analyst (PRA) - Association of Professional Reserve Analysts



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 Champions Way 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) Champions Way 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.