

Revised
FULL RESERVE STUDY
2615 Park
Avenue Associates



Minneapolis, Minnesota
Inspected - August 12, 2020
Revised - December 1, 2020



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Long-term thinking. Everyday commitment.

2615 Park Avenue Associates
Minneapolis, Minnesota

Dear Board of Directors of 2615 Park Avenue Associates:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of 2615 Park Avenue Associates in Minneapolis, Minnesota and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, August 12, 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 2615 Park Avenue Associates plan for a successful future.

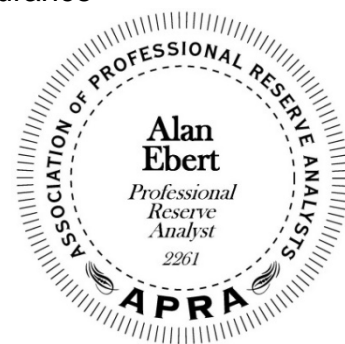
As part of our long-term thinking and everyday commitment to our clients, we are available to answer any questions you may have regarding this study.

Respectfully submitted on December 1, 2020 by

Reserve Advisors, LLC

Visual Inspection and Report by: Keary D. Wass, 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: 2615 Park Avenue Associates (2615 Park)

Location: Minneapolis, Minnesota

Reference: 152230

Property Basics: 2615 Park Avenue Associates is a condominium style development consisting of 112 units in one building. The building was built in 1929 and was converted to condominiums in 1947.

Reserve Components Identified: 65 Reserve Components.

Inspection Date: August 12, 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 these critical years in 2021, 2031 and 2041 due to repairs to the masonry walls, and in 2050 due to subsequent replacement of the built-up roof and solar panel system

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:

- \$338,767 as of June 30, 2020
- 2020 budgeted Reserve Contributions of \$43,439
- A potential deficit in reserves might occur by 2021 based upon continuation of the most recent annual reserve contribution of \$43,439 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 Cooperative prioritize the following projects in the next five years based on the conditions identified:

- Systematic preventative maintenance to the masonry and stone facade to minimize the potential for water infiltration
- Replacement of the buildings built-up roof and installation of roof anchors to allow for reduced mobilization costs
- Replacement of the elevated garage's traffic coating to repair existing deterioration and reduce water penetration into the reinforced concrete
- Replacement of building heating system components as-needed

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

- Increase to \$298,000 in 2021

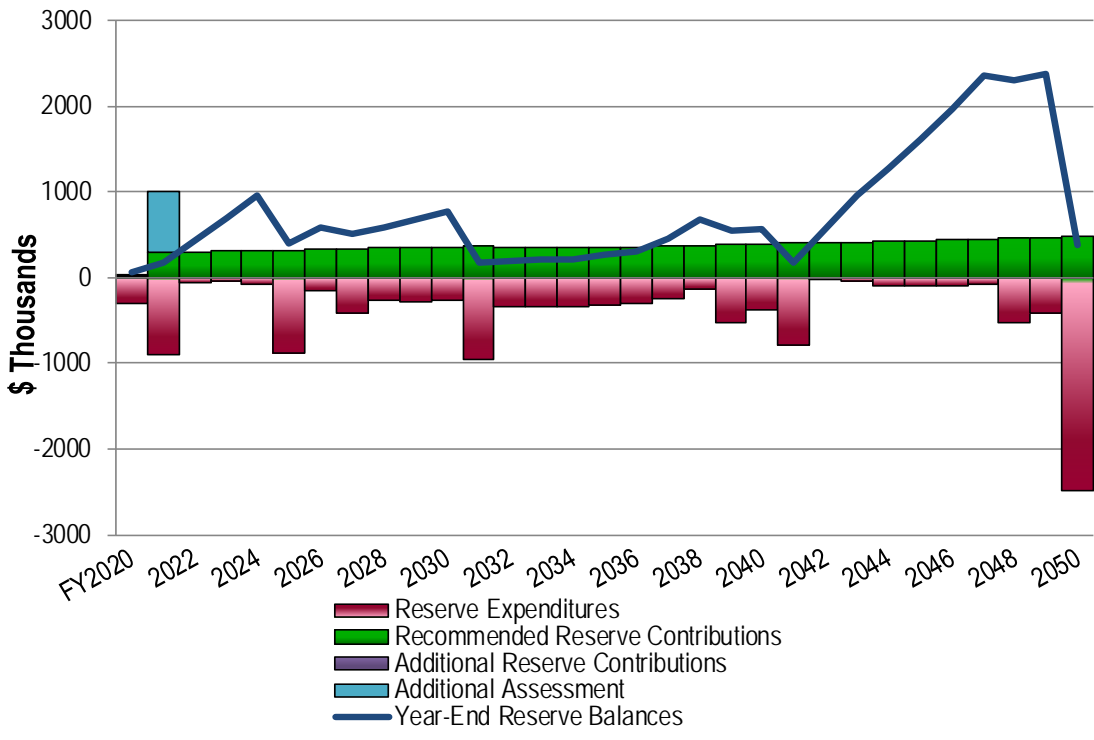


- Inflationary increases from 2022 through 2031
- Stable contributions of \$353,500 from 2032 through 2035
- Inflationary increases through 2050, the limit of this study's Cash Flow Analysis
- Initial adjustment in Reserve Contributions of \$254,561 represents an average monthly increase of \$189.41 per shareholder and about a twenty-five percent (25.4%) adjustment in the 2020 total Operating Budget of \$1,002,781.
- Additional annual assessment of \$700,000 in 2021 to fund the exterior masonry repairs
- Additional assessments of \$700,000 in 2021 is equivalent to an average monthly Additional Assessment of approximately \$521 per shareholder



2615 Park
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2021	298,000	179,020	2031	363,300	177,193	2041	398,200	180,658
2022	304,000	427,846	2032	353,500	195,888	2042	406,200	567,181
2023	310,100	702,204	2033	353,500	207,856	2043	414,300	952,018
2024	316,300	955,697	2034	353,500	217,163	2044	422,600	1,280,254
2025	322,600	398,067	2035	353,500	258,385	2045	431,100	1,618,611
2026	329,100	579,967	2036	360,600	313,268	2046	439,700	1,973,580
2027	335,700	507,991	2037	367,800	447,888	2047	448,500	2,362,220
2028	342,400	589,641	2038	375,200	686,639	2048	457,500	2,309,646
2029	349,200	669,594	2039	382,700	556,355	2049	466,700	2,374,698
2030	356,200	762,796	2040	390,400	574,331	2050	476,000	377,177





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

2615 Park Avenue Associates

Minneapolis, Minnesota

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, August 12, 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 Shareholders 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 Cooperative 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 Shareholders

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:

- 2615 Park 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.

- Doors and Windows, Common, Replacement (Excl. Renovations and Storm Windows)
- Foundation
- Irrigation System (2015)
- Light Fixtures, Hallways, Pendants
- Pipes, Subsurface Utilities
- Structural Frame
- Trash Chute and Incinerator Chute (Abandoned)

The operating budget provides money for the repair and replacement of certain Reserve Components. The Cooperative 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 Repairs, Patch and Seal Coat
- Chemical Treatment System, Boiler Feed Water
- Doors, Interior
- Duct Cleaning
- Exhaust Fans, Kitchens and Bathrooms
- Expansion Tanks
- Fire Extinguishers
- Interior Finishes, Laundry Room, Service Areas, Storage Rooms and Exercise Room
- Irrigation System, Controls and Maintenance
- Landscape, Maintenance
- Light Fixtures, Exit
- Light Fixtures, Exterior
- Paint Finishes, Garage
- Paint Finishes, Touch Up
- Pipes, Common, Interim Repairs and Waste Rodding
- Radiators, Common

- Signage
- Tractor, Maintenance
- Valves (We assume replacement as needed in lieu of an aggregate replacement of all small diameter valves as a single event.)
- Other Repairs normally funded through the Operating Budget



Tractor



Exterior lights

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

- Air Conditioning Units
- Electrical Systems (Including Circuit Protection Panels)
- Interiors
- Pipes (Within Units)
- Windows (Including Storm Windows)

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 cooperative, 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

2615 Park
Avenue Associates
Minneapolis, Minnesota

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		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																																					
1.020	1	1	Square Feet	Awning, Canvas and Frame	2029	10 to 15	9	19,000.00	19,000	19,000	0.4%																	22,707									
1.130	1	1	Allowance	Canopy, Lobby Entrance, Repairs (Incl. Roof)	2033	to 20	13	9,000.00	9,000	9,000	0.1%																	11,642									
1.160	1	1	Allowance	Doors and Windows, Entrances, Repairs and Refinishing	2022	6 to 8	2	4,200.00	4,200	4,200	0.2%		4,370									5,120															
1.287	1,300	1,300	Linear Feet	Roof, Anchors, Installation	2025	N/A	5	110.00	143,000	143,000	1.3%																	157,884									
1.300	27,670	27,670	Square Feet	Roofs, Built-up, Initial (Incl. Removal and Reinstallation of Solar System)	2025	to 25	5	18.00	498,060	498,060	11.9%																	549,898									
1.301	27,670	27,670	Square Feet	Roofs, Built-up, Subsequent	2050	to 25	30	16.50	456,555	456,555	6.8%																										
1.540	14,400	3,600	Linear Feet	Sealants, Windows and Doors, Phased	2026	5 to 20	6 to 21	6.00	21,600	86,400	1.2%																	24,325	26,857								
1.820	60,400	60,400	Square Feet	Walls, Masonry, Inspections and Repairs, Initial (Incl. Sealants)	2021	N/A	1	12.00	724,800	724,800	5.8%	708,050																									
1.821	60,400	60,400	Square Feet	Walls, Masonry, Inspections and Repairs, Subsequent	2031	8 to 10	11	6.00	362,400	362,400	8.2%																		450,599								
1.980	2,030	1,015	Square Feet	Windows, Common, Renovation, Phased	2031	45 to 55	11 to 12	65.00	65,975	131,950	1.4%																	82,032	83,672								
1.981	2,030	1,015	Square Feet	Windows, Common, Storm Windows, Replacement, Phased	2031	to 25	11 to 12	25.00	25,375	50,750	0.5%																		31,551	32,182							
Interior Building Elements																																					
2.060	1	1	Allowance	Club Room, Renovation, Complete	2033	to 20	13	33,000.00	33,000	33,000	0.4%																		42,689								
2.061	1	1	Allowance	Club Room, Renovation, Partial	2023	to 5	3	4,000.00	4,000	4,000	0.2%				4,245														4,687								
2.100	2	2	Each	Elevator Cab Finishes, Freight and Passenger, Stain Finishes and Repairs	2021	to 10	1	3,000.00	6,000	6,000	0.2%	6,120																	7,460								
2.155	3	1	Allowance	Exercise Equipment, Cardiovascular, Phased	2025	5 to 15	5 to 15	3,000.00	3,000	9,000	0.2%																		3,312	3,657	4,038						
2.200	2,060	2,060	Square Yards	Floor Coverings, Carpet, Hallways	2027	8 to 12	7	100.00	206,000	206,000	4.4%																		236,629								
2.300	65	65	Square Yards	Floor Coverings, Vinyl, Freight Elevator Lobbies	2027	10 to 15	7	60.00	3,900	3,900	0.1%																		4,480								
2.520	1	1	Allowance	Kitchen, Renovation	2025	to 25	5	8,000.00	8,000	8,000	0.2%																		8,833								
2.600	1	1	Allowance	Lobby, Renovation	2028	to 20	8	50,000.00	50,000	50,000	1.2%																		58,583								
2.780	1	1	Allowance	Office and Meeting Room, Renovation	2020	to 20	0	10,000.00	10,000	10,000	0.2%	10,000																									
2.800	79,500	26,500	Square Feet	Paint Finishes, Hallways, Phased	2021	8 to 12	1 to 3	1.30	34,450	103,350	5.7%																		35,139	35,842	36,559	39,572	40,364	41,171	44,565	45,456	46,365
2.801	3	3	Each	Paint Finishes, Stairwells	2027	to 25	7	16,000.00	48,000	48,000	0.5%																			55,137							
2.802	112	112	Each	Paint Finishes, Unit Entrance Doors	2021	8 to 12	1	270.00	30,240	30,240	0.9%																			30,845					37,600		
2.900	1	1	Each	Rest Rooms, Renovation, Womens Room (Excl. Fixtures)	2039	to 25	19	6,000.00	6,000	6,000	0.1%																										
2.901	2	2	Each	Rest Room, Renovation, Lobby and Mens Room (Excl. Fixtures)	2022	to 25	2	3,000.00	6,000	6,000	0.1%																			6,242							
Building Services Elements																																					
3.060	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, Location Served, 5-tons	2025	15 to 20	5	12,000.00	12,000	12,000	0.3%																			13,249							
3.100	2	2	Each	Boilers, Building Heat, 6,100-MBH, Capital Repairs (Incl. 2020 Rebuild)	2020	to 10	0	34,500.00	69,000	69,000	2.7%	148,108																		80,844							
3.105	2	1	Each	Boilers, Building Heat, 6,100-MBH, Replacement, Phased	2048	to 60+	28 to 29	230,000.00	230,000	460,000	6.6%																										
3.160	2	2	Each	Boilers, Domestic Hot Water, 400-MBH	2033	15 to 20	13	13,000.00	26,000	26,000	0.3%																			33,634							
3.300	2	2	Each	Electrical System, Commercial Entities, Rewiring	2021	N/A	1	5,000.00	10,000	10,000	0.1%																			10,200							
3.301	1	1	Allowance	Electrical System, Laundry Room, Wiring Relocation	2021	N/A	1	4,500.00	4,500	4,500	0.0%																			4,590							
3.302	1	1	Allowance	Electrical System, Main Panels, Thermal Scans and Repairs	2024	to 70+	4	50,000.00	50,000	50,000	1.6%																			54,122	65,974						
3.360	1	1	Each	Elevator, Traction, Controls and Equipment, Freight	2050	to 30	30	100,000.00	100,000	100,000	1.5%																										
3.361	1	1	Each	Elevator, Traction, Controls and Equipment, Passenger	2026	to 40	6	100,000.00	100,000	100,000	0.9%																			112,616							
3.365	1	1	Each	Elevators, Traction, Hoists and Motors, Freight (Incl. 2020 Remaining)	2020	to 45	0	70,000.00	70,000	70,000	0.5%	59,946																									
3.366	1	1	Each	Elevators, Traction, Hoists and Motors, Passenger	2041	to 40	21	70,000.00	70,000	70,000	0.9%																										
3.440	1	1	Each	Generator, Emergency, 125-kW (Includes Transfer Switch)	2031	to 35	11	92,000.00	92,000	92,000	0.9%																			114,390							
3.460	1	1	Each	Heat Exchanger, Building Heat (Incl. 2021 Repairs)	2021	to 25	1	8,000.00	8,000	8,000	0.1%																			1,000	9,373						
3.470	1	1	Each	Intercom Panel	2038	15 to 20	18	3,900.00	3,900	3,900	0.0%																										
3.500	10	3	Each	Laundry Equipment, Washers and Dryers, Phased	2022	to 10	2 to 8	1,500.00	4,995	15,000	0.5%																			5,197	5,515	5,852	6,335	6,723			

RESERVE EXPENDITURES

2615 Park
Avenue Associates
Minneapolis, Minnesota

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)																			
Exterior Building Elements																													
1.020	1	1	Square Feet	Awning, Canvas and Frame	2029	10 to 15	9	19,000.00	19,000	19,000	0.4%																29,961		
1.130	1	1	Allowance	Canopy, Lobby Entrance, Repairs (Incl. Roof)	2033	to 20	13	9,000.00	9,000	9,000	0.1%																		
1.160	1	1	Allowance	Doors and Windows, Entrances, Repairs and Refinishing	2022	6 to 8	2	4,200.00	4,200	4,200	0.2%			5,999														7,028	
1.287	1,300	1,300	Linear Feet	Roof, Anchors, Installation	2025	N/A	5	110.00	143,000	143,000	1.3%																		
1.300	27,670	27,670	Square Feet	Roofs, Built-up, Initial (Incl. Removal and Reinstallation of Solar System)	2025	to 25	5	18.00	498,060	498,060	11.9%																	902,167	
1.301	27,670	27,670	Square Feet	Roofs, Built-up, Subsequent	2050	to 25	30	16.50	456,555	456,555	6.8%																	826,986	
1.540	14,400	3,600	Linear Feet	Sealants, Windows and Doors, Phased	2026	5 to 20	6 to 21	6.00	21,600	86,400	1.2%	29,652						32,738										36,146	
1.820	60,400	60,400	Square Feet	Walls, Masonry, Inspections and Repairs, Initial (Incl. Sealants)	2021	N/A	1	12.00	724,800	724,800	5.8%																		
1.821	60,400	60,400	Square Feet	Walls, Masonry, Inspections and Repairs, Subsequent	2031	8 to 10	11	6.00	362,400	362,400	8.2%							549,277											
1.980	2,030	1,015	Square Feet	Windows, Common, Renovation, Phased	2031	45 to 55	11 to 12	65.00	65,975	131,950	1.4%																		
1.981	2,030	1,015	Square Feet	Windows, Common, Storm Windows, Replacement, Phased	2031	to 25	11 to 12	25.00	25,375	50,750	0.5%																		
Interior Building Elements																													
2.060	1	1	Allowance	Club Room, Renovation, Complete	2033	to 20	13	33,000.00	33,000	33,000	0.4%																		
2.061	1	1	Allowance	Club Room, Renovation, Partial	2023	to 5	3	4,000.00	4,000	4,000	0.2%			5,713				6,308										6,964	
2.100	2	2	Each	Elevator Cab Finishes, Freight and Passenger, Slain Finishes and Repairs	2021	to 10	1	3,000.00	6,000	6,000	0.2%							9,094											
2.155	3	1	Allowance	Exercise Equipment, Cardiovascular, Phased	2025	5 to 15	5 to 15	3,000.00	3,000	9,000	0.2%							4,458										5,434	
2.200	2,060	2,060	Square Yards	Floor Coverings, Carpet, Hallways	2027	8 to 12	7	100.00	206,000	206,000	4.4%				300,103														
2.300	65	65	Square Yards	Floor Coverings, Vinyl, Freight Elevator Lobbies	2027	10 to 15	7	60.00	3,900	3,900	0.1%								6,029										
2.520	1	1	Allowance	Kitchen, Renovation	2025	to 25	5	8,000.00	8,000	8,000	0.2%																	14,491	
2.600	1	1	Allowance	Lobby, Renovation	2028	to 20	8	50,000.00	50,000	50,000	1.2%																	87,051	
2.780	1	1	Allowance	Office and Meeting Room, Renovation	2020	to 20	0	10,000.00	10,000	10,000	0.2%								14,859										
2.800	79,500	26,500	Square Feet	Paint Finishes, Hallways, Phased	2021	8 to 12	1 to 3	1.30	34,450	103,350	5.7%				50,187	51,191	52,215												56,519 57,649 58,802
2.801	3	3	Each	Paint Finishes, Stairwells	2027	to 25	7	16,000.00	48,000	48,000	0.5%																		
2.802	112	112	Each	Paint Finishes, Unit Entrance Doors	2021	8 to 12	1	270.00	30,240	30,240	0.9%								45,834										
2.900	1	1	Each	Rest Rooms, Renovation, Womens Room (Excl. Fixtures)	2039	to 25	19	6,000.00	6,000	6,000	0.1%				8,741														
2.901	2	2	Each	Rest Room, Renovation, Lobby and Mens Room (Excl. Fixtures)	2022	to 25	2	3,000.00	6,000	6,000	0.1%																	10,241	
Building Services Elements																													
3.060	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, Location Served, 5-tons	2025	15 to 20	5	12,000.00	12,000	12,000	0.3%																	19,687	
3.100	2	2	Each	Boilers, Building Heat, 6,100-MBH, Capital Repairs (Incl. 2020 Rebuild)	2020	to 10	0	34,500.00	69,000	69,000	2.7%			98,549															
3.105	2	1	Each	Boilers, Building Heat, 6,100-MBH, Replacement, Phased	2048	to 60+	28 to 29	230,000.00	230,000	460,000	6.6%																	400,436 408,444	
3.160	2	2	Each	Boilers, Domestic Hot Water, 400-MBH	2033	15 to 20	13	13,000.00	26,000	26,000	0.3%																		
3.300	2	2	Each	Electrical System, Commercial Entities, Rewiring	2021	N/A	1	5,000.00	10,000	10,000	0.1%																		
3.301	1	1	Allowance	Electrical System, Laundry Room, Wiring Relocation	2021	N/A	1	4,500.00	4,500	4,500	0.0%																		
3.302	1	1	Allowance	Electrical System, Main Panels, Thermal Scans and Repairs	2024	to 70+	4	50,000.00	50,000	50,000	1.6%									80,422									
3.360	1	1	Each	Elevator, Traction, Controls and Equipment, Freight	2050	to 30	30	100,000.00	100,000	100,000	1.5%																	181,136	
3.361	1	1	Each	Elevator, Traction, Controls and Equipment, Passenger	2026	to 40	6	100,000.00	100,000	100,000	0.9%																		
3.365	1	1	Each	Elevators, Traction, Hoists and Motors, Freight (Incl. 2020 Remaining)	2020	to 45	0	70,000.00	70,000	70,000	0.5%																		
3.366	1	1	Each	Elevators, Traction, Hoists and Motors, Passenger	2041	to 40	21	70,000.00	70,000	70,000	0.9%							106,097											
3.440	1	1	Each	Generator, Emergency, 125-kW (Includes Transfer Switch)	2031	to 35	11	92,000.00	92,000	92,000	0.9%																		
3.460	1	1	Each	Heat Exchanger, Building Heat (Incl. 2021 Repairs)	2021	to 25	1	8,000.00	8,000	8,000	0.1%																		
3.470	1	1	Each	Intercom Panel	2038	15 to 20	18	3,900.00	3,900	3,900	0.0%			5,570															
3.500	10	3	Each	Laundry Equipment, Washers and Dryers, Phased	2022	to 10	2 to 8	1,500.00	4,995	15,000	0.5%			7,134				7,722										8,195 8,696	

RESERVE EXPENDITURES

2615 Park
Avenue Associates
Minneapolis, Minnesota

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)																	
3.555	1	1	Allowance	Life Safety System, Control Panel	2039	15 to 20	19	6,000.00	6,000	6,000	0.1%				8,741												
3.560	1	1	Allowance	Life Safety System, Emergency Devices (Incl. 2021 Rewiring by Elevators)	2021	to 25	1	103,500.00	103,500	103,500	1.6%				150,780												
3.600	112	12	Units	Pipes, Riser Sections, Building Heating, Phased	2029	to 80+	9 to 17	5,600.00	69,664	627,200	6.7%	95,634	97,546														
3.605	112	12	Units	Pipes, Domestic Water, Waste and Vent, Phased	2029	to 80+	9 to 17	7,500.00	93,300	840,000	8.9%	128,081	130,643														
3.700	1	1	Each	Pump, Condensate Return (Incl. 2020 Valve Replacements)	2020	15 to 20	0	40,000.00	40,000	40,000	0.8%	54,911															
3.701	1	1	Each	Pump, Sump, Boiler Room (Incl. 2020 Budgeted)	2020	15 to 20	0	6,200.00	6,200	6,200	0.2%															11,230	
3.702	2	2	Each	Pumps, Sump, Garage	2020	15 to 20	0	6,000.00	12,000	12,000	0.4%															21,736	
3.840	96	96	Each	Solar Photovoltaic System - 40 kW	2050	to 25	30	2,300.00	220,800	220,800	3.3%															399,949	
3.860	2	2	Each	Storage Tanks, Domestic Hot Water	2048	to 30	28	8,000.00	16,000	16,000	0.2%													27,856			
3.865	1	1	Allowance	Storage Tank, Fuel Oil, 6,500 gallons	2027	to 50	7	35,000.00	35,000	35,000	0.3%																
Property Site Elements																											
4.040	330	330	Square Yards	Asphalt Pavement, Mill and Overlay	2049	15 to 20	29	15.00	4,950	4,950	0.1%															8,790	
4.045	330	330	Square Yards	Asphalt Pavement, Total Replacement	2029	15 to 20	9	32.00	10,560	10,560	0.1%																
4.110	400	95	Linear Feet	Concrete Curbs and Gutters, Partial	2021	to 65	1 to 30+	32.00	3,040	12,800	0.1%															5,399	
4.140	8,600	1,145	Square Feet	Concrete Sidewalks, Partial	2024	to 65	4 to 30+	13.00	14,885	111,800	0.5%								23,942								
4.500	1	1	Allowance	Landscape, Partial Replacements	2020	to 5	0	10,000.00	10,000	10,000	0.8%				14,859						16,406					18,114	
4.745	130	130	Square Feet	Retaining Walls, Masonry (Incl. 2020 Budgeted)	2020	to 35	0	30.00	3,900	3,900	0.1%															7,064	
4.960	430	430	Square Feet	Waterproof Membrane and Concrete Structure Repairs, Fuel Storage Vault	2027	25 to 35	7	60.00	25,800	25,800	0.2%																
Garage Elements																											
7.300	11,780	11,780	Square Feet	Concrete, Elevated Floor, Inspections and Capital Repairs	2025	10 to 15	5	4.00	47,120	47,120	1.0%					70,018											
7.360	10,740	2,150	Square Feet	Concrete, On-grade, Repairs and Perimeter Waterproof Coating (Including 2020 Budgeted)	2020	to 90	0 to 30+	19.00	40,850	204,060	1.8%					60,701											73,994
7.400	2	2	Each	Doors and Operators	2026	8 to 15	6	6,500.00	13,000	13,000	0.5%			18,567													23,548
7.460	1	1	Allowance	Exhaust System (Incl. 2020 Replacement of Fans)	2020	to 35	0	10,000.00	10,000	10,000	0.2%					14,859											
7.500	22,520	22,520	Square Feet	Fire Suppression System	2028	to 60	8	2.50	56,300	56,300	0.5%																
7.600	63	63	Each	Light Fixtures	2040	to 30	20	350.00	22,050	22,050	0.3%					32,765											
7.800	11,780	11,780	Square Feet	Traffic Coating, Elevated Floors	2025	10 to 15	5	6.50	76,570	76,570	1.6%					113,779											
7.900	6	1	Each	Unit Heaters, Phased	2022	to 35	2 to 27	6,000.00	6,000	36,000	0.4%		8,401				9,276						10,241				
Anticipated Expenditures, By Year (\$12,180,474 over 30 years)												308,278	236,590	141,532	518,552	377,489	795,255	23,027	36,269	104,364	105,729	100,823	79,284	531,003	422,633	2,485,849	

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS
2615 Park
Avenue Associates
Minneapolis, Minnesota

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)	338,767	70,553	179,020	427,846	702,204	955,697	398,067	579,967	507,991	589,641	669,594	762,796	177,193	195,888	207,856	217,163
Recommended Reserve Contributions		21,720	298,000	304,000	310,100	316,300	322,600	329,100	335,700	342,400	349,200	356,200	363,300	353,500	353,500	353,500	353,500
Additional Contribution From Sale		11,000															
Additional Assessment			700,000														
Total Recommended Reserve Contributions	(Note 2)	32,720	998,000	304,000	310,100	316,300	322,600	329,100	335,700	342,400	349,200	356,200	363,300	353,500	353,500	353,500	353,500
Anticipated Interest Rate		0.25%	0.25%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%
Estimated Interest Earned, During Year	(Note 3)	256	312	2,719	5,062	7,427	6,065	4,381	4,874	4,917	5,641	6,417	4,211	1,671	1,809	1,904	2,130
Anticipated Expenditures, By Year		(301,189)	(889,845)	(57,893)	(40,804)	(70,234)	(886,295)	(151,581)	(412,550)	(265,667)	(274,888)	(269,415)	(953,114)	(336,476)	(343,341)	(346,097)	(314,408)
Anticipated Reserves at Year End		<u>\$70,553</u>	<u>\$179,020</u>	<u>\$427,846</u>	<u>\$702,204</u>	<u>\$955,697</u>	<u>\$398,067</u>	<u>\$579,967</u>	<u>\$507,991</u>	<u>\$589,641</u>	<u>\$669,594</u>	<u>\$762,796</u>	<u>\$177,193</u>	<u>\$195,888</u>	<u>\$207,856</u>	<u>\$217,163</u>	<u>\$258,385</u>
Predicted Reserves based on 2020 funding level of:		\$43,439	70,553	(NOTE 5) (779,027)									(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		258,385	313,268	447,888	686,639	556,355	574,331	180,658	567,181	952,018	1,280,254	1,618,611	1,973,580	2,362,220	2,309,646	2,374,698
Total Recommended Reserve Contributions		360,600	367,800	375,200	382,700	390,400	398,200	406,200	414,300	422,600	431,100	439,700	448,500	457,500	466,700	476,000
Estimated Interest Earned, During Year		2,561	3,410	5,083	5,568	5,065	3,382	3,350	6,806	10,000	12,986	16,092	19,424	20,929	20,985	12,328
Anticipated Expenditures, By Year		(308,278)	(236,590)	(141,532)	(518,552)	(377,489)	(795,255)	(23,027)	(36,269)	(104,364)	(105,729)	(100,823)	(79,284)	(531,003)	(422,633)	(2,485,849)
Anticipated Reserves at Year End		<u>\$313,268</u>	<u>\$447,888</u>	<u>\$686,639</u>	<u>\$556,355</u>	<u>\$574,331</u>	<u>\$180,658</u>	<u>\$567,181</u>	<u>\$952,018</u>	<u>\$1,280,254</u>	<u>\$1,618,611</u>	<u>\$1,973,580</u>	<u>\$2,362,220</u>	<u>\$2,309,646</u>	<u>\$2,374,698</u>	<u>\$377,177</u>
							(NOTE 5)									NOTES 4&5

Explanatory Notes:

- 1) Year 2020 starting reserves are as of June 30, 2020; FY2020 starts January 1, 2020 and ends December 31, 2020.
- 2) Reserve Contributions for 2020 are the remaining budgeted 6 months; 2021 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 age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

FIVE-YEAR OUTLOOK**2615 Park
Avenue Associates**
Minneapolis, Minnesota

Line Item	Reserve Component Inventory	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025
<u>Exterior Building Elements</u>							
1.160	Doors and Windows, Entrances, Repairs and Refinishing			4,370			
1.287	Roof, Anchors, Installation						157,884
1.300	Roofs, Built-up, Initial (Incl. Removal and Reinstallation of Solar System)						549,898
1.820	Walls, Masonry, Inspections and Repairs, Initial (Incl. Sealants)		708,050				
<u>Interior Building Elements</u>							
2.061	Club Room, Renovation, Partial				4,245		
2.100	Elevator Cab Finishes, Freight and Passenger, Stain Finishes and Repairs		6,120				
2.155	Exercise Equipment, Cardiovascular, Phased						3,312
2.520	Kitchen, Renovation						8,833
2.780	Office and Meeting Room, Renovation	10,000					
2.800	Paint Finishes, Hallways, Phased		35,139	35,842	36,559		
2.802	Paint Finishes, Unit Entrance Doors		30,845				
2.901	Rest Room, Renovation, Lobby and Mens Room (Excl. Fixtures)			6,242			
<u>Building Services Elements</u>							
3.060	Air Handling Unit, Rooftop Heating and Cooling Unit, Location Served, 5-tons						13,249
3.100	Boilers, Building Heat, 6,100-MBH, Capital Repairs (Incl. 2020 Rebuild)	148,108					
3.300	Electrical System, Commercial Entities, Rewiring		10,200				
3.301	Electrical System, Laundry Room, Wiring Relocation		4,590				
3.302	Electrical System, Main Panels, Thermal Scans and Repairs					54,122	
3.365	Elevators, Traction, Hoists and Motors, Freight (Incl. 2020 Remaining)	59,946					
3.460	Heat Exchanger, Building Heat (Incl. 2021 Repairs)		1,000				
3.500	Laundry Equipment, Washers and Dryers, Phased			5,197			5,515
3.560	Life Safety System, Emergency Devices (Incl. 2021 Rewiring by Elevators)		50,000				
3.700	Pump, Condensate Return (Incl. 2020 Valve Replacements)	4,000	40,800				
3.701	Pump, Sump, Boiler Room (Incl. 2020 Budgeted)	6,175					
3.702	Pumps, Sump, Garage	12,000					
<u>Property Site Elements</u>							
4.110	Concrete Curbs and Gutters, Partial		3,101				
4.140	Concrete Sidewalks, Partial					16,112	
4.500	Landscape, Partial Replacements	10,000					11,041
4.745	Retaining Walls, Masonry (Incl. 2020 Budgeted)	2,500					

FIVE-YEAR OUTLOOK

**2615 Park
Avenue Associates**
Minneapolis, Minnesota

Line Item	Reserve Component Inventory	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025
Garage Elements							
7.300	Concrete, Elevated Floor, Inspections and Capital Repairs						52,024
7.360	Concrete, On-grade, Repairs and Perimeter Waterproof Coating (Including 2020 Budget)	39,460					
7.460	Exhaust System (Incl. 2020 Replacement of Fans)	9,000					
7.800	Traffic Coating, Elevated Floors						84,539
7.900	Unit Heaters, Phased			6,242			
Anticipated Expenditures, By Year (\$12,180,474 over 30 years)		301,189	889,845	57,893	40,804	70,234	886,295

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



Overview of building's west elevation



Overview of building's south elevation



Overview of building's north elevation



Overview of building's east elevation

Awnings

Line Item: 1.020

Quantity: One canvas awning with metal frame at the building's north entrance

History: The awning was last replaced in 2015.

Condition: Fair overall with minor fade of the fabric and minor frame corrosion evident.



Overview of awning at north elevation



Minor frame corrosion

Useful Life: 10- to 15-years

Priority/Criticality: Per Management discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend interim replacement of the fabric through the operating budget as-needed.

Canopy

Line Item: 1.130

Quantity: One canopy at the buildings west entrance

History: The canopy structure was last renovated in 2014.

Condition: Good overall condition



Canopy overview

Useful Life: Up to 20 years

Component Detail Notes: Our estimate of cost for renovation includes the following:

- Painting of the column supports and metal fascia
- Replacement of the canopy roof
- Replacement of the canopy light fixtures
- Repairs to the underlying soffit

Priority/Criticality: Per Board discretion

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

Doors and Windows, Entrances, Repairs and Refinishing

Line Item: 1.160

Quantity: The Cooperative is responsible for the maintenance and repairs to the entrance windows and doors.

History: The doors are likely original. The Cooperative last refinished the doors in 2014.

Condition: Fair overall with stain finish deterioration evident



Entrance doors

Useful Life: Refinishing and repairs every six- to eight-years

Component Detail Notes: Refinishing should include the complete removal of the existing protective finishes, sanding of scratched areas and the replacement of wood as needed followed by the application of a new protective finish. The Cooperative should also consider replacement of the door hardware and seals if needed.

Priority/Criticality: Per Board discretion

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

Roof, Anchors, Proposed

Line Item: 1.287

History: The Cooperative would like to install roof anchors along the 1,300 linear feet of roof perimeter.

Component Detail Notes: Roof anchors require embedment into the existing roof system. We include for replacement in coordination with the recommended replacement of the built-up roof. This type of replacement will result in reduced installation costs and risk of damage to the roofing system.

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Cooperative received an estimate of approximately \$200,000 for installation of the roof anchors. Installation of the anchors in coordination with replacement of the built-up roof will likely result in lower overall installation costs. The Cooperative should anticipate increased costs from our estimate of cost for installation without roof replacement.

Roofs, Built-up

Line Item: 1.300

Quantity: 27,670 square feet of built up roofs including the roofing above the elevated garage and the EPDM roof above the elevator room.

History: The age of the roof varies. The Cooperative replaced portions of the roof in 2001. The roof above the elevator room was replaced in 2013. The current Board informs us full replacement was unlikely.

Condition: Visually the built-up roof is in fair overall condition. We note finish deterioration at the parapet walls, standing water, finish deterioration and damage to drain and vent components, blistering, prior repairs and coating deterioration evident. Management and the Board do not inform us of a history of known leaks. The roof was last inspected in 2018.



Overview of built-up roof



Overview of parapet wall



Finish deterioration



Standing water



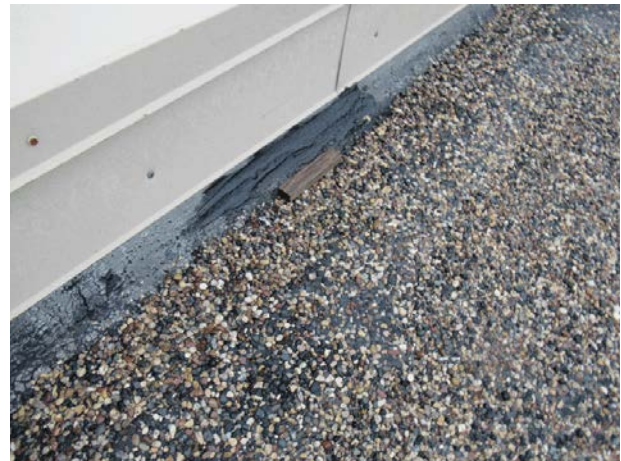
Damage of roof drain



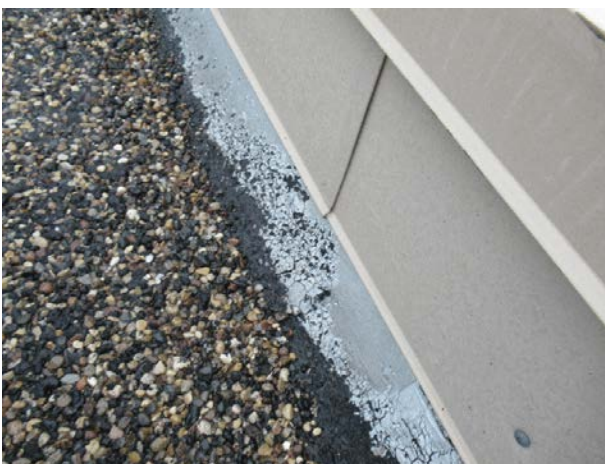
Blistering – condition is a result of the expansion of air beneath the bituminous



Prior repairs



Prior repairs



Deterioration



Minor vent damage



Built up roof above elevated garage

Useful Life: Up to 25 years

Component Detail Notes: Built-up roofing provides a durable system due to its multi-layer protection. Built-up roofs are composed of asphalt coated roofing sheets installed in layers to add strength to the roofing system. Built-up roofs are an economical option for flat and low-sloped roofs.

Contractors can install a new built-up roof in one of two ways: *tear-off* or an *overlay*. An *overlay* is the application of a new roof membrane over an existing roof. This method, although initially more economical, often covers up problems with the deck, flashing and saturated insulation. The *tear-off* method of replacement includes removal of the existing roofing, flashings and insulation, and installation of a new roofing system.

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 Cooperative install roof anchors in coordination with replacement of the built-up roof. This type of installation will result in lower overall costs and reduced risk of damage.

Sealants, Windows and Doors

Line Item: 1.540

Quantity: Approximately 14,400 linear feet of exterior sealants or *caulk*¹ at the windows and doors²

¹ The terms sealant and caulk are used interchangeably throughout this text and throughout the industry.

² 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.

History: The ages of the sealants vary. The cooperative last funded for a façade renovation in 2005 that likely included replacement of sealants. Management and the Board have recently taken bids for façade repairs that include sealant replacements.

Condition: Fair to poor overall with missing sealants, sealant deterioration and isolated repairs evident.



Window sealant deterioration



Missing sealants



Frame damage with prior sealant repair

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 Cooperative 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. We recommend 2615 Park replace the Cooperative budget for replacement of up to twenty-five percent (25%) of the sealants every five years. Installation of the roof anchors should reduce mobilization costs.

Walls, Masonry

Line Items: 1.820 and 1.821

Quantity: Approximately 60,400 square feet of the exterior walls

History: The cooperative last funded for a façade renovation in 2005. Management and the Board have recently taken bids for façade repairs. These repairs include for tuck-pointing, painting of lintels, replacement of sills and sealant replacement. The cost of the project the Cooperative is considering is \$708,050 if the Cooperative agrees to complete the project during the construction season.

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

- Extensive previous repairs evident
- Efflorescence is not visible
- Lintels exhibit rust
- Masonry exhibits cracks
- Masonry exhibits spalls
- Mortar deterioration is evident
- Mortar joints are tooled



Overview of masonry with organic growth evident



Prior masonry repairs



Prior masonry repairs



Mortar deterioration



Prior repairs above lintel



Mortar deterioration above lintel



Concrete crack



Crack at prior concrete repair



Spalled concrete



Concrete crack



Lintel with significant corrosion



Lintel corrosion



Garage lintels in good condition

Useful Life: We advise a complete inspection of the masonry and related masonry repairs 8- to 12-years to forestall deterioration.

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. Structural damage can eventually lead to costly replacements of lintels and surrounding wall systems.

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include the costs for initial repairs. Our estimate of cost for subsequent repairs include the following activities:

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

Windows, Common

Line Items: 1.980 and 1.981

Quantity: 2,030 square feet of common windows

History: The windows are original. The Cooperative reportedly installed storm windows in the early 1990's. The exact age was unknown at the time of the inspection.

Condition: Fair overall with isolated deterioration of frames evident



Window overview



Frame deterioration



Interior view of window

Useful Life: Renovation every 45- to 55-years with replacement of the storm windows up to every 25 years. Our estimate of cost for renovation includes the following:

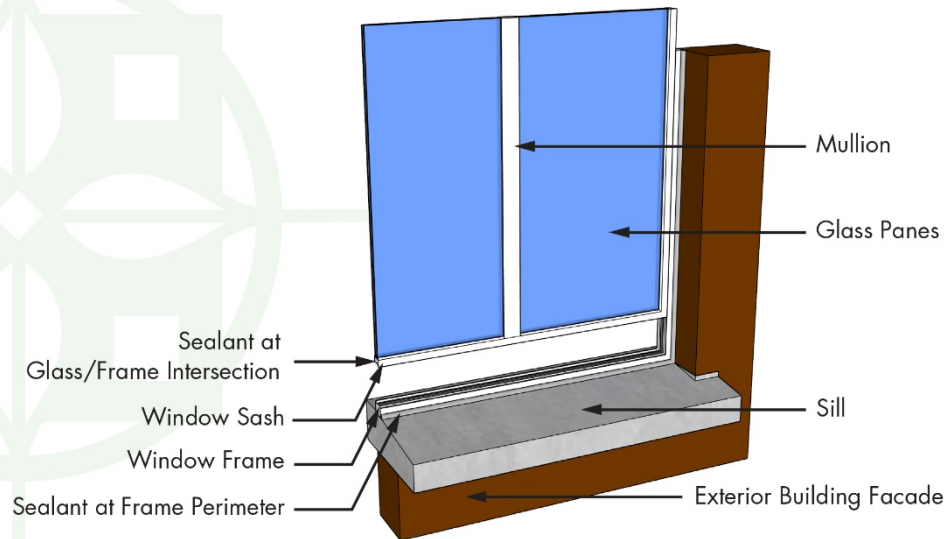
- Replacement of deteriorated wood
- Replacement of glass panes
- Replacement of window seals
- Replacement of hardware
- Application of a sealer or stain

Component Detail Notes: Construction includes the following:

- Wood frames with aluminum cladding
- Double hung windows

The following schematic depicts the typical components of a window system although it may not reflect the actual configuration at 2615 Park:

WINDOW DETAIL



© Reserve Advisors

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.

Interior Building Elements

Club Room

Line Items: 2.060 and 2.061

History: The Cooperative renovated the club room in 2015.

Condition: Good overall condition



Club room overview

Useful Life: Renovation up to every 20 years

Component Detail Notes: Components include:

- Terrazzo floor coverings
- Wood wall coverings
- Paint finishes on the walls and ceilings
- Light fixtures
- Furnishings

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost for partial replacements include for replacement of up to twenty-five percent (25%) of the furnishings.

Elevator Cab Finishes

Line Item: 2.100

Quantity: Two elevators; the cab finishes consist of:

- Slate tile and carpet floor coverings
- Wood wall coverings
- Wood and glass ceiling

History: Last renovated in 2005

Condition: Good to fair overall with stain deterioration on the wood walls



Wood and glass ceiling finishes



Tile floor coverings



Glass doors



Wood walls with finish deterioration

Useful Life: Renovation up to every 10 years

Priority/Criticality: Per Board discretion

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

Exercise Equipment

Line Items: 2.155

Quantity: The exercise room contains the following types of exercise equipment:

- Elliptical
- Stationary cycle
- Television
- Treadmill
- Weight training machine

History: The ages of the equipment vary. Management and the Board inform us the Cooperative replaced an elliptical in 2020 for \$2,500.

Conditions: Good overall



Exercise equipment

Useful Life: The useful life of exercise equipment is 5- 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. We recommend 2615 Park anticipate replacement of up to thirty-three percent (33%) of the equipment per event.

Floor Coverings, Carpet

Line Item: 2.200

Quantity: Approximately 2,060 square yards at the hallways (Contractor measurements will vary from the actual floor area due to standard roll lengths, patterns and installation waste.)

History: Replaced in 2015

Condition: Good to fair overall with stains evident



Carpet overview



Carpet overview



Carpet stains

Useful Life: 8- to 12-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We base our estimate of cost on historical information provided by Management.

Floor Coverings, Vinyl

Line Item: 2.300

Quantity: 65 square yards at the freight elevator lobbies

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

Condition: Good to fair overall



Overview of vinyl floor coverings

Useful Life: 10- 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.

Kitchen

Line Item: 2.520

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

Condition: Fair overall



Kitchen overview

Useful Life: Renovation up to every 25 years

Component Detail Notes: Components of the kitchen include:

- Paint finishes
- Appliances
- Cabinets and countertops
- Light fixtures

Priority/Criticality: Per Board discretion

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

Lobby

Line Item: 2.600

History: The Cooperative last renovated the lobby in 2004.

Condition: Good to fair overall with terrazzo floor cracks evident



Lobby overview



Lobby overview



Lobby overview



Terrazzo floor crack

Useful Life: Renovation up to every 20 years

Component Detail Notes: Components comprise the following:

- Terrazzo floor coverings
- Wood wall coverings
- Paint finishes
- Furnishings
- Light fixtures

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We base our estimate of cost on information provided by Management. We opine the cost insufficient to cover replacements of the terrazzo floor covering and wood wall coverings.

Office and Meeting Rooms

Line Item: 2.780

History: Last renovated in 2000

Condition: Good overall



Overview of meeting room

Useful Life: Renovation up to every 20 years

Component Detail Notes: Components include:

- Terrazzo floor coverings
- Paper wall coverings
- Paint finishes
- Light fixtures
- Furnishings

- Equipment

Priority/Criticality: Per Board discretion

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

Paint Finishes

Line Items: 2.800 through 2.802

Quantity: The Cooperative maintains the paint finishes at the following locations:

- 79,500 square feet on wall and ceilings throughout the hallways
- The three sets of staircases that provide access through the building and one partial staircase to the lower garage
- The 112 shareholder entry doors

History: The Cooperative last painted the hallways in 2015. Management informs us the Cooperative obtained a bid for the painting of the shareholder doors for \$30,000.

Condition: The paint finishes at the hallways are in good to fair overall condition with scuffs and paint peel evident. The paint finishes at the shareholders doors are in fair to poor overall condition with paint damage evident. The paint finishes at the stairwells is in good to fair overall condition with isolated wall cracks and scuffs evident.



Hallway paint



Significant scuffs at entry doors



Wall scuffs



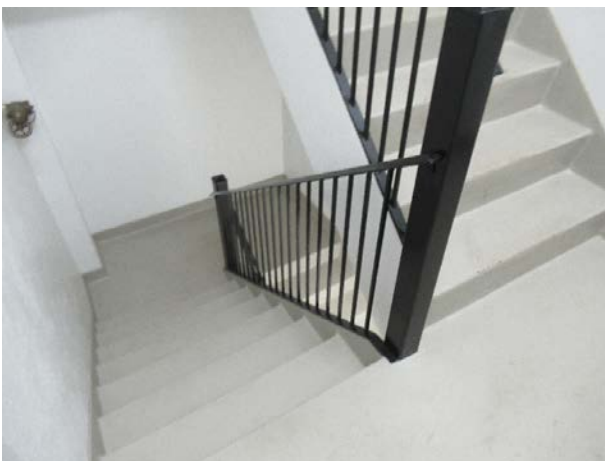
Paint peel



Wall scuffs



Wall scuffs



Overview of stairwell finishes



Wall crack

Useful Life: 8- to 12-years for hallway and entry door finishes and up to 25 years for stairwell finishes

Priority/Criticality: Per Board discretion

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

Rest Rooms

Line Items: 2.900 and 2.901

Quantity: The cooperative maintains three common rest rooms.

History: The Cooperative renovated the women’s rest room on the ground floor in 2014. The Cooperative updated all the rest room fixtures and painted the rooms in 2019.

Condition: The rest rooms are in good to fair overall condition with tile cracks evident.



Women’s rest room



Men’s rest room



Tile crack



Rest room near lobby

Useful Life: Renovation up to every 25 years

Component Detail Notes: Components include:

- Tile floor coverings
- Partial tile wall coverings in the men's and lobby rest rooms
- Paper wall coverings in the women's rest rooms
- Paint 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. Our estimate of cost for renovation excludes replacement of the fixtures. The estimates of cost for renovation of the lobby and men's room rest rooms is based on information provided by Management.

Building Services Elements

Air Handling Unit, Rooftop Heating and Cooling Unit

Line Item: 3.060

Quantity: One Carrier rooftop air handling unit for the elevator control room

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

Condition: Reported satisfactory without operational deficiencies



Rooftop air handling unit

Useful Life: 15- to 20-years

Component Detail Notes: The unit has the following characteristics:

- Electric heating capacity of approximately 33-MBH (thousand British Thermal Units per hour)
- Cooling capacity of 5-tons

- R-22 refrigerant

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Cooperative 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:

- Quarterly:
 - Inspect belts for alignment, tension and condition
 - Clean/replace filter and screen cleaning as needed
 - Inspect/clean coils, blowers and motors
 - Check refrigerant pressure and oil levels
 - Clean drainage and inspect drain pans
 - Check/adjust controls
- Semi-annually:
 - Lubricate motor bearings
- Annually:
 - Replace belts

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.

Boilers, Building Heat

Line Items: 3.100 and 3.105

Quantity: Two *Kewanee* gas-fired steam boilers

History: The Cooperative restored the boilers, one in 2018, and one in 2020. The cost of the 2020 Renovation was \$148,108 and includes the replacement of burners, controllers and inner tubes. This cost also includes alterations to the buildings refractory floor. Management and the Board inform us of efficiency improvements with the replacements.

Condition: Reported satisfactory without operational deficiencies



Boiler overview



Burner and controls



Controls

Useful Life: Up to and likely beyond 60 years with capital repairs every up to 10 years

Component Detail Notes: The boilers have an *input* capacity of 6,100-MBH (thousand British Thermal Units per hour) each. Typical capital repairs include replacement of heat exchanger tubes and burners. In larger systems, the cost of boiler replacement justifies capital repairs. In the case of needed capital repairs, 2615 Park should compare the cost of boiler replacement with that of the capital repair and the age. Energy efficiency improvements may also warrant complete replacement.

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Cooperative 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:

- Weekly:
 - Inspect for leaking water around boilers

- Check temperature readings
- Verify vent is unobstructed
- Conduct boiler blowdown to minimize corrosion and remove suspended solids in system
- Clean pilot and burner assemblies
- Monthly:
 - Check water and pressure levels
 - Check controls and switches for proper operating
 - Check and inspect condensate drain
 - Check all gaskets for tight sealing
- Annually:
 - Conduct full inspection of burners and flues
 - Clean and inspect tubes to reduce scaling
 - Inspect any pressure relief valves
 - Clean and recondition feed water pumps
 - Inspect electrical terminals and controls
 - Seal doors/access panels
 - Adjust air/fuel ratios 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 estimate of cost includes allowances for design, engineering, controls and repiping. We include the full balance of \$148,108 for rebuilding of the boiler in 2020.

Boilers, Domestic Hot Water

Line Item: 3.160

Quantity: Two gas-fired domestic hot water boilers

History: Replaced in 2013; past repairs include replacements of valves and the controllers. Management and the Board inform us the condensate return pump is currently failing.

Condition: Management and the Board inform us the condensate return pump is currently failing. Refer to our narrative "**Pumps**" for replacement of the condensate return pump.



Boiler

Useful Life: 15- to 20-years

Component Detail Notes: The boilers have an input capacity of 400-MBH (thousand British Thermal Units per hour) each to generate domestic hot water.

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Cooperative 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:

- Weekly:
 - Inspect for leaking water around boilers
 - Check temperature readings
 - Verify vent is unobstructed
 - Conduct boiler blowdown to minimize corrosion and remove suspended solids in system
 - Clean pilot and burner assemblies
- Monthly:
 - Check water and pressure levels
 - Check controls and switches for proper operating
 - Check and inspect condensate drain
 - Check all gaskets for tight sealing
- Annually:
 - Conduct full inspection of burners and flues
 - Clean and inspect tubes to reduce scaling
 - Inspect any pressure relief valves
 - Inspect electrical terminals and controls

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 an allowance for replacement of controls.

Electrical System

Line Items: 3.300 and 3.302

History: The Cooperative replaced much of the buildings electrical system in 2004. Management and the Board inform us the Cooperative added a breaker panel in 2019. Additionally, the two commercial units in the building are not metered separately from the building. The Cooperative would like to provide separate metering for these entities. In addition, five of the Association's laundry machines use extension cords ran externally to provide power from wall outlets. The Association would like to rewire these machines.

Condition: Reported minor issues



Overview of primary switchgear



Overview of hallway circuit breaker panel



Electrical wiring for laundry machines uses extension cords run externally to wall outlets

Useful Life: Up to and sometimes beyond 70 years

Component Detail Notes: We give a brief overview of electrical system components in the following sections of this narrative.

Primary Switchgear - The primary switchgear is located where the electric supply comes into the building. Switchgear can include associated controls, regulating, metering and protective devices, and is used for the transmission, distribution and conversion of electric power for use within the building. Switchgear components have a useful life of up to and sometimes beyond 70 years. Replacement is often determined by a desired upgrade of the entire electrical system.

Transformer - A transformer is an electric device with two or more coupled windings used to convert a power supply from one voltage to another voltage. Transformers within a building lower the supplied electrical voltage to a level that can be utilized by the building's equipment and unit owners. Transformers do not utilize mechanical components and therefore have a long useful life. However, the Cooperative should anticipate periodic replacement of a limited quantity of transformers.

Distribution Panel - The distribution panel is an electric switchboard or panel used to control, energize or turn off electricity in total or for individual circuits. The panel also distributes electricity to individual and controllable circuits. One or more distribution panels may exist and further distribute electricity to individual panel boards for each unit. The distribution panel is enclosed in a box and contains circuit breakers, fuses and switches. Distribution panels have a useful life of up to and sometimes beyond 70 years.

Circuit Protection - Once electricity is distributed throughout the building and is at a usable voltage level, the electricity is divided into circuits. Each circuit requires circuit protection. Circuit protection is necessary to prevent injury and fires, and minimize damage to electrical components and disturbances to the electrical system. Abnormalities in the circuit can include overloads, short circuits and surges. Circuit protection devices are commonly referred to as circuit breakers and fuses. For the protection of the circuits in the units and common areas, we recommend the use of only circuit breakers as they are safer than fuses. However, the use of fuses is common for equipment like emergency systems and individual items of equipment. Fuses with a low capacity rating can easily be replaced with fuses of a higher rating resulting in an unprotected, overloaded and unsafe circuit. The circuit protection panels have a useful life of up to and sometimes beyond 70 years.

Conductors - Conductors are the electrical wires that convey electricity to the units, light fixtures, receptacles and appliances. Conductors in typical high and low capacity circuits are copper, as is reported the case at 2615 Park. Copper conductors have an indefinite useful life.

Conductor Insulation and Conduit - Conductor insulation provides protection against the transfer of electricity. Conductor insulation can eventually become brittle and damaged from rodents or heat from many years of service. Conductor conduit is a pipe or tube used to enclose insulated electric wires to protect them from damage. Steel conductor conduit, although galvanized, will eventually rust if used in damp conditions. The useful life of conductor insulation and conduit is indeterminate.

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Cooperative 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:

- Annually:
 - Inspect system for signs of electrical overheating, deterioration, and/or panel corrosion
 - Clean and vacuum exterior and interior switchboards
- Five-Year Cycles:
 - Check power meters, lamps, indicators, and transformers for deficiencies
 - Inspect wiring, relays, power supply units, and timers
 - Verify surge protection is intact
- As-needed:
 - Test outlets and ground-fault circuit interrupters(GFCI's) for faulty components
 - Examine the insulation at switchgears for signs of deterioration or cracking
 - Ensure all conductors are clean and dry with no moisture build-up
 - Check and inspect for loose wire connections
 - Clean and clear dust and debris away from system components
 - Check for flickering or dimming light fixtures as these could indicate a short in the wiring, arcing, or an over-extension of the electrical system
 - Conduct thermal image scanning if system experiences numerous or consistent outages
 - Keep an accurate record of all repairs to the electrical system

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. In 2021, we include funds for rewiring and panel installation for the two commercial entities and funds for through wall and ceiling wiring for the laundry equipment. The estimate of cost for the commercial entity panels is based on information provided by Management and our estimate of cost for rewiring the laundry equipment is based on linear feet of electrical run and refinishing of wall openings. Our

estimate of cost for the main panels includes for thermoscans and repairs to the buildings remaining electrical systems.

We recommend the Cooperative conduct thermoscans of the distribution panels and circuit protection panels, and inspections of the transformers for any indications of arcing, burning or overheating on a regular basis. Verification of the integrity of all connection points minimizes the potential for arcing and fires.

Elevators, Traction

Line Items: 3.360 and 3.365

Quantity: Two traction elevators including one freight elevator and one passenger elevator

History: The freight elevators controls and call buttons were last replaced in 1996 and the Cooperative plans to replace the controls, cab lighting, hoists and motors in 2020 at a cost of \$189,402 including a change order for additional work to the machine room. The passenger elevator controls, hoists and motors were last replaced in 1996.

Condition: The controls are reported in satisfactory condition and the hoists and motors are reported in satisfactory condition. Service interruptions are reportedly infrequent.



Passenger elevator hoist and motor



Freight elevator hoist and motor



Passenger elevator controls

Useful Life: Up to 30 years for the controls and call buttons and up to 45 years for the hoists and motors. However, the scarcity of parts, and the potential frequency and duration of service interruption makes controls replacement more desirable as the components age.

Component Detail Notes: The elevators utilize programmable logic computer controls.

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Cooperative 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:

- Ongoing:
 - Maintain a maintenance contract with a qualified professional for the elevator(s) and follow the manufacturer's specific recommended maintenance plan adhering to local, state, and/or federal inspection guidelines
- As-needed:
 - Keep an accurate log of all repairs and inspection dates
 - Inspect and adjust misaligned door operators
 - Clear and remove any items located in the elevator machine room(s) not associated with the elevator components (These rooms should never be used for storage)
 - Inspect electrical components for signs of overheating or failure
 - Inspect controls
 - Lubricate the hoist cables
 - Inspect hoist cables and motors for signs of wear or deterioration
 - Ensure air temperature and humidity of machine/pump housing room meets the designated specified range for proper operation
 - Ensure all call buttons are in working condition

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include the remaining balance of \$59,946 for replacement of the freight elevators equipment.

Generator, Emergency

Line Item: 3.440

Quantity: One Cummins 125-kW (kilowatt) diesel generator

History: Replaced in 1991; the Cooperative repaired the generator in 2019 including replacement of the battery.

Condition: Reported satisfactory without operational deficiencies



Generator

Useful Life: Up to 35 years

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Cooperative maintain a maintenance contract with a qualified professional. As a reference, the Cooperative may consult the following document: *NFPA 110, Standard for Emergency and Standby Power Systems*. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
 - Check fuel and oil levels
 - Inspect cooling and exhaust systems
 - Check battery, electrical components and transfer switches
 - Run generator without load and look for unusual conditions such as leaks
- Monthly:

- Exercise generator under load test for minimum of 30 minutes
- Check oil levels before running and after 10 minutes of run time
- Annually:
 - Complete full inspection and necessary repairs
 - Change fuel and air filters
 - Change oil and replace oil filter
 - Change spark plugs
 - Flush cooling system

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 transfer switch.

Heat Exchanger

Line Item: 3.465

Quantity: One domestic water shell and tube style heat exchanger works in conjunction with the building heat boilers to provide hot water for the domestic water system during the winter.

History: Replaced in 2014

Condition: The heat exchanger is non-functional since 2018.



Heat exchanger

Useful Life: Up to 25 years

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Cooperative maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the type of heat

exchanger, unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to conduct on an annual basis to maximize the remaining useful life:

- Remove and inspect tube bundles if possible
- Clean and inspect tubes for leaks or splits
- If sacrificial anodes are used, inspect and replace as needed
- Inspect and replace any damaged or worn gaskets

Component Detail Notes: The Cooperative may choose to rebuild the heat exchangers prior to complete replacement. However, this activity becomes less desirable as heat exchangers age due to the scarcity of parts. We regard interim replacements of exchanger tubes as normal maintenance and base our estimates on complete 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. We include funds in 2021 for estimated repairs.

Intercom Panel

Line Item: 3.470

Quantity: One each

History: Replaced in 2018

Condition: Reported satisfactory



Intercom panel

Useful Life: 15- to 20-years

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. The required preventative

maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Monthly:
 - Inspect panel for damage and ensure the panel is mounted securely, tighten or replace any loose or damaged fasteners.
 - Inspect panel for proper operation of buttons, displays, microphone and speaker.
- Annually:
 - Check power connections, and if applicable, functionality of battery power supply systems

Priority/Criticality: Per Board discretion

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

Laundry Equipment

Line Item: 3.500

Quantity: Ten pieces of coin operated clothes washers and dryers

History: The laundry equipment varies in age. The Cooperative replaced two of the machines in 2019.

Condition: Reported satisfactory



Laundry equipment

Useful Life: Up to 10 years

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the

Cooperative 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:
 - Ensure areas surrounding dryers are clear of combustible materials
 - Check hoses and belts for damage and cracks
 - Check dryer exhaust connections for proper alignment and connection.
 - Check unit for loose electrical connections
- As-needed:
 - Replace belts
 - Clear unit of lint and any debris
 - Clean or replace water inlet filters, remove drum debris and wipe down door gaskets
 - Ensure water outlet is free of dirt and soap residue

Priority/Criticality: Per Board discretion

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

Life Safety System

Line Items: 3.555 and 3.560

Quantity: The life safety system at 2615 Park includes the following components:

- Audio/visual fixtures
- *Silent Knight by Honeywell* control panel
- Detectors
- Exit light fixtures
- Pull stations
- Wiring

History: The Cooperative replaced the control panel in 2019. The ages of the remaining components vary.

Conditions: The control panel and devices are reported as satisfactory. The Association was informed during a recent inspection that the wiring above the elevator lobbies will need conduit added and rewiring in 2021.



Life safety system control panel



Emergency device – pull station

Useful Life: Up to 25 years for the devices and 15- to 20-years for the control panel

Preventative Maintenance Notes: We recommend the Cooperative 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 Cooperative 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, including, but not limited to, control panels, annunciators, detectors, audio/visual fixtures, signal transmitters and magnetic door holders
 - Test backup batteries
- As-needed:
 - Ensure clear line of access to components such as pull stations
 - Ensure detectors are properly positioned and clean of debris

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. We include an allowance of \$50,000 in 2021 for rewiring the life safety systems near the elevator lobbies.

Pipes

Line Items: 3.600 and 3.605

Quantity: We estimate the following quantities of riser pipe sections based on past conversations with the Cooperative.

Type	Material	Risers	Floors	Riser Sections
Building Heating	Black steel	126	7	882
Domestic Cold Water Supply	Copper	39	7	273
Domestic Hot Water Supply	Copper	39	7	273
Domestic Hot Water Return	Copper	39	7	273
Sanitary Waste and Disposal	Galvanized steel	39	7	273
Vent	Galvanized steel	39	7	273
			Total	2,247

History and Condition:

- Building Heating – Original and reported in satisfactory condition; Management and the Board inform us of repairs at one line.
- Domestic Water, Supply and Return – Original and reported in satisfactory condition
- Sanitary Waste Disposal and Vent – Original and reported in satisfactory condition

Component Detail Notes: The Cooperative is responsible for maintenance and replacement of the piping systems arranged in vertical and horizontal segments. These pipes comprise the following:

- Building heating
- Domestic cold water
- Domestic hot water supply and return
- Vent plumbing fixtures
- Sanitary waste disposal

The exact locations and conditions of the pipes were not ascertained due to the nature of their location and the non-invasive nature of our inspection. We comment on the respective quantities and conditions of the piping systems in the following sections of this narrative.

Building Heating - The building heating system at 2615 Park utilizes a two-pipe system. The black steel pipes have a useful life of up to and sometimes beyond 80 years.

Domestic Water - Copper piping is the predominant type of pipe used in new construction for domestic water piping. With low mineral content in the water, the useful life of copper domestic water pipes is up to and sometimes beyond 80 years. However, there is recent evidence that copper piping prematurely develops pinhole leaks. Studies have shown that changes in water treatment practices, recently required in response to U.S. Environmental Protection Agency regulations, are dramatically increasing the risk of pitting corrosion in many geographic locations. Utility companies are implementing higher chloride levels to prevent outbreaks of waterborne disease. These higher chloride levels can accelerate corrosion of copper pipes and indeterminately reduce their useful life.

In the event that numerous pinhole leaks develop or occur throughout the system of pipes, 2615 Park should also consider “in-place” pipe restoration technology. This process includes drying, sandblasting away interior pipe occlusions and applying an epoxy lining to the interior surfaces of the pipes. Future updates of this study will consider the possibility of the pipe restoration process in lieu of pipe replacement at 2615 Park. Restoration technology can extend the useful life of a pipe system thus avoiding a system pipe replacement.

Sanitary Waste Disposal and Vent - The galvanized steel pipes typically deteriorate from the inside out as a result of sewer gases, condensation and rust.

Valves - The piping systems include various valves. Identification of a typical useful life and remaining useful life for individual valves is difficult. Cooperatives typically replace valves on an as needed basis in our experience.

Preventative Maintenance Notes: The required preventative maintenance may vary in frequency and scope based on the building’s age and demands of the piping systems. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Quarterly:
 - Inspect all visible piping for corrosion and leaks, including common areas or areas immediately surrounding pipes such as insulation, ceiling tiles or the floor for moisture, water accumulation, mold or mildew
- Annually:
 - Verify system pressure is sufficient
 - Check accessible valves for proper operation
 - Test backflow prevention devices
 - Inspect and obtain certification for pressure relief valves
 - Test drain line flow rates
 - Mechanically or chemically clean sewer lines 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 assumes replacement of all pipes located within each wall opening, associated branch piping, fittings and minimal interior finishes. However, the cost does not include temporary housing for affected residents, pipes within the units or significant interior finishes.

The Cooperative budgets an amount in the annual operating budget for minor pipe repairs and replacements. We recommend the Cooperative continue to fund interim pipe replacements, prior to more aggregate replacements identified in the following paragraphs, from the operating budget. We also recommend the Cooperative contract for an invasive investigation of the condition of the piping system prior to beginning more aggregate replacements, funded through the operating budget.

We recommend the Cooperative budget the following expenditures:

- Building heating - We include expenditures to replace the riser pipes at 12 units beginning by 2029. Our estimate provides funds to replace approximately all the riser pipes during the next 30 years.
- Domestic water, waste and vent - We include expenditures to replace the riser pipes at 12 units beginning by 2029. Our estimate provides funds to replace approximately all the riser pipes during the next 30 years.

An invasive analysis of the piping systems will provide various replacement options. Replacement of the systems as an aggregate event will likely require the use of special assessments or loans to fund the replacements.

Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, 2615 Park could budget sufficient reserves for the beginning of these pipe replacements 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 pipe replacements to budget sufficient reserves.

We recommend the Cooperative budget for replacement of the following items through the operating budget:

- Replacement of valves on an as-needed basis
- Minor pipe repairs and replacements
- invasive investigation of the condition of the piping system prior to beginning more aggregate replacements
- Rodding of waste pipes

Pumps

Line Items: 3.700 through 3.702

Quantity, History and Conditions:

- One condensate return pump - original to conversion, the system is reportedly failing and Management and the Board anticipates the need to spend \$40,000 for replacement. The Association performed repairs in 2020 that includes replacement of five small diameter valves.
- One boiler room sump pump - replaced in 2020, reported satisfactory
- Two garage sump pumps – installed in 2014, capacity is reported as insufficient to meet demand. The Cooperative plans to replace the pumps in 2020.



Boiler room sump pump



Condensate return system



Garage sump pumps

Useful Lives: 15- to 20-years

Component Detail Notes: The Cooperative may choose to rebuild pumps prior to complete replacement. However, this activity becomes less desirable as pumps age due to the scarcity of parts. We regard interim replacements of motors and component parts as normal maintenance and base our estimates on complete replacements. An exact replacement time for each individual pump is difficult, if not impossible, to estimate.

Preventative Maintenance Notes: We recommend the Cooperative obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Cooperative 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. Valuable motor information to note in a preventative maintenance plan or schedule includes age of unit and last time of repair, horsepower and rpm (revolutions per minute), bearing type and conditions surrounding motor/pump. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
 - Check/adjust controls
 - Check/adjust pressure levels
 - Check for leaks
 - Conduct churn tests
- Quarterly:
 - Inspect/clean motors
 - Inspect mountings and connections for proper alignment, torque and condition
 - Inspect/replace pump packing as needed, consider replacement with mechanical seals
 - Check for appropriate oil levels
- Semi-annually:
 - Lubricate pumps, motors and motor bearings
- Annually:
 - Inspect belts for wear and/or replace belts
 - Clean filters if present
 - Assess proper internal component performance and replace damaged or malfunction components as necessary, and tighten fittings
 - Assess temperature and vibration performance of motors in accordance with the intended design

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include the replacement cost of \$6,175 in 2020 for the boiler room sump pump and \$12,000 in 2020 for replacement of the garage sump pumps due to reported capacity issues.

Solar Photovoltaic System

Line Item: 3.840

Quantity: 96 solar panels

History: Installed in 2014

Condition: Reported in satisfactory operational condition. The reported gains from the system are insufficient.



Solar panels

Useful Life: Up to 25 years

Component Detail Notes: Photovoltaic (PV) systems may last longer but typically decrease in efficiency beyond 25 years. PV solar systems will typically see a decrease to approximately ninety percent (90%) of the original power output by an age of 15 years and approximately eighty percent (80%) by 25 years. The Cooperative should conduct annual inspections of the panels to check for corrosion, and broken wiring at the electrical and mechanical connections. When the solar array decreases in power output, the Cooperative should consider cleaning of the panels by a licensed professional funded 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. Roof replacement requires the removal and reinstallation of the solar panels. We recommend the Cooperative coordinate replacement of solar photovoltaic system in coordination with the subsequent roof replacement to reduce overall replacement costs and the risk of damage related with separate replacements.

Storage Tanks, Domestic Hot Water

Line Item: 3.860

Quantity: Two insulated storage tanks

History: Replaced in 2013

Condition: Reported satisfactory



Domestic hot water storage tanks

Useful Life: Up to 30 years

Preventative Maintenance Notes: 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 conduct on an annual basis to maximize the remaining useful life:

- Inspect for leakage and corrosion
- Inspect and repair/replace valves including any pressure relief valves

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.

Storage Tank, Fuel Oil

Line Item: 3.860

Quantity: One 6,500 gallon fuel storage tank

History: Replaced in the mid 1980's

Condition: Reported satisfactory



Overview of fuel storage tank



Minor surface corrosion

Useful Life: Up to 50 years

Preventative Maintenance Notes: 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 conduct on an annual basis to maximize the remaining useful life:

- Inspect for leakage and corrosion
- Inspect and repair/replace valves including any pressure relief valves

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. Replacement of the fuel storage tank will likely require overhead access. We recommend the Cooperative coordinate replacement of the fuel storage tank with the above waterproof membrane system.

Property Site Elements

Asphalt Pavement, Repaving

Line Items: 4.040 and 4.045

Quantity: Approximately 330 square yards at the front entrance of the building.

History: The Cooperative repaved the asphalt pavement in 2014 and repaired the pavement in 2019 through the operating budget.

Condition: The pavement is in fair overall condition with transverse cracks, prior crack repairs and seal coat deterioration evident.



Asphalt pavement access drive overview



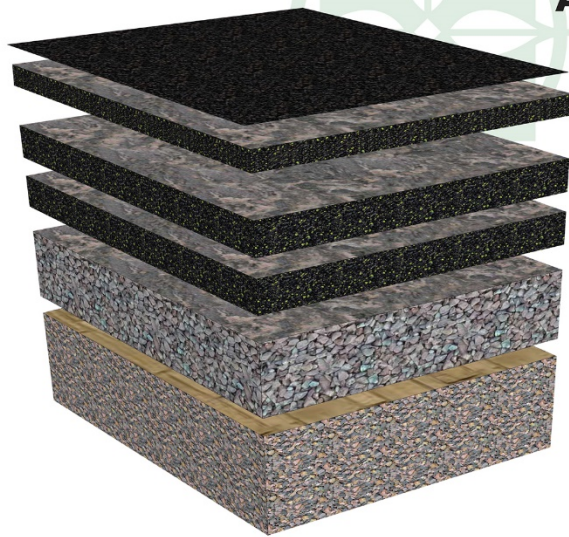
Transverse cracks with prior repairs



Transverse cracks with prior repairs

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 2615 Park:



ASPHALT DIAGRAM

Sealcoat or Wearing Surface

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

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

**Compacted Crushed Stone
or Aggregate Base**

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

© Reserve Advisors

The manner of repaving is either a mill and overlay or total replacement. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the total replacement method for initial repaving followed by the mill and overlay method for subsequent repaving at 2615 Park.

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 milling and overlayment includes area patching of up to ten percent (10%).

Concrete Curbs and Gutters

Line Item: 4.110

Quantity: Approximately 400 linear feet

Condition: Fair overall with concrete deterioration evident



Curb overview with concrete deterioration



Concrete curb deterioration

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 285 linear feet of curbs and gutters, or seventy-one percent (71.3%) of the total, will require replacement during the next 30 years.

Concrete Sidewalks

Line Item: 4.140

Quantity: Approximately 8,600 square feet

Condition: Good to fair overall with surface pitting and prior partial replacements evident



Sidewalk overview with surface pitting



Sidewalk overview with surface pitting



Prior replacement

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 3,435 square feet of concrete sidewalks, or forty percent (39.9%) of the total, will require replacement during the next 30 years.

Landscape

Line Item: 4.500



Front elevation rain garden

Component Detail Notes: The Cooperative contains a large quantity shrubbery and other landscape elements. Replacement of these elements is an ongoing need. Many associations budget for these replacements as normal maintenance. Other associations fund ongoing replacements from reserves. Large amounts of landscape may need

replacement due to disease, drought or other forces of nature. If the cost of removal and replacement is substantial, funding from reserves is logical. The Cooperative may also desire to periodically update the appearance of the community through major improvements to the landscape.

Useful Life: At the request of Management and the Board, we include a landscape allowance for \$10,000 plus inflation for partial replacements every five years beginning in 2020.

Priority/Criticality: Per Board discretion

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

Retaining Walls, Masonry

Line Item: 4.745

Quantity: Approximately 130 square feet of retaining walls located at the south-east perimeter of the building and the north entrance.

History: The age of the north entrance retaining wall was unavailable at the time of our inspection. The Cooperative recently constructed the retaining wall at the south-east perimeter in 2020.

Condition: Good overall condition with no significant deterioration



Retaining wall 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.

Waterproof Membrane Replacement and Concrete Structure Repairs

Line Item: 4.960

Quantity: 430 square feet

History: The membrane was last replaced in 1997.

Condition: Reported in satisfactory condition without leaks



Surface location of membrane



Prior water stains

Useful Life: 25- to 35-years

Component Detail Notes: Due to the non-invasive nature of our inspection, we are unable to determine the exact composition of the plaza. Based on our visual inspection, experience with similar construction and knowledge of replacement/capital repair projects of this type, we surmise the plaza comprises the following elements:

- Landscape
- Perimeter flashing
- Underlying waterproof membrane atop the structure
- Elevated structural concrete

We surmise a waterproof membrane separates and protects the structure from the migration of storm water through the landscape elements. Over time, the growth of tree and large shrub roots may erode the membrane. The Cooperative should inspect the areas under landscape to identify evidence of water infiltration through the membrane and limit irrigation of the landscape until repairs, if necessary, are made. 2615 Park should fund isolated membrane repairs through the operating budget to maximize the useful life of the membrane. As the membrane ages and deteriorates, water infiltration through the structure and leaks into the space beneath will become more frequent and widespread. Deterioration of the concrete structure beneath the membrane is also probable due to membrane leaks and normal aging of the concrete.

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 replacement includes an allowance for capital repairs to the underlying concrete structure.

Garage Elements



Garage overview

Concrete, Elevated Floors

Line Item: 7.300

Quantity: Approximately 11,780 square feet of elevated cast-in-place concrete floor at the ground level. This quantity includes the elevated concrete area at the ground floor over the boiler room and also includes the ramp between parking levels.

Condition and History: Good to fair overall with prior repairs and concrete deterioration evident. The elevated structural concrete does utilize a protective traffic coating.



Overview of elevated concrete



Prior repair



Deterioration of wall concrete

Useful Life: Repairs to the various concrete surfaces every 10- 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. Our cost includes:

- Complete inspection of the garage concrete
- Partial depth concrete replacement of a limited amount of the surface area of the concrete floors
- Partial depth concrete replacement of a limited amount of the surface area of the elevated structural concrete ceilings
- Remediation of structural concrete columns and beams as needed
- Crack repairs on all surfaces as needed

Concrete, On-grade

Line Item: 7.360

Quantity: Approximately 10,740 square feet of on-grade concrete at the lower level garage

Condition: Fair overall with cracks, concrete deterioration, surface pitting and prior repairs evident. The Cooperative was in the process of adding a sealant to the perimeter walls and performing on-grade floor and column repairs at the time of our inspection.



On-grade concrete garage overview



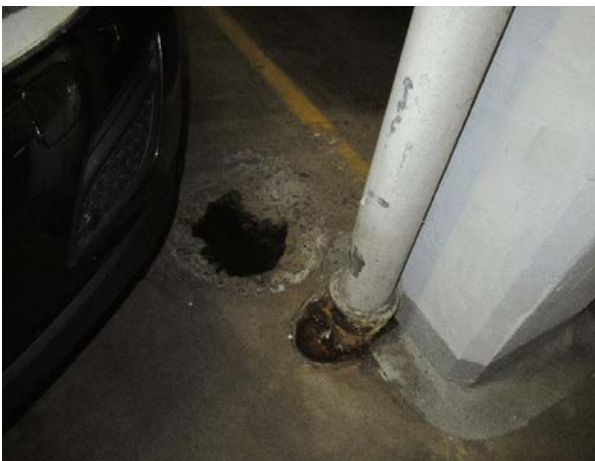
Concrete spalling



Concrete deterioration at lower walls



Surface pitting



Spalled section of concrete



Prior slab repair



Prior wall crack repairs



Prior wall repairs

Useful Life: Up to 90 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include the \$39,460 for repairs in 2020. Expenditures assume:

- Complete inspection of the floor
- Selective cut out and replacement of up to twenty percent (20%), or 2,150 square feet, of the on-grade concrete
- Application of a waterproof coating at the perimeter
- Crack repairs as needed

Doors and Operators

Line Item: 7.400

Quantity: Two metal overhead sectional garage doors with *LiftMaster* operators

History: Replaced in 2014

Condition: Reported satisfactory with minimal outages



Overview of garage doors



Overview of operators

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. The Cooperative should fund interim replacements of components through the operating budget.

Exhaust Fans

Line Item: 7.460

Quantity: The Cooperative maintains two wall mounted exhaust fans

History: The Cooperative has proposals for replacement of the fans in 2020.



Wall exhaust fan

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. We regard interim repairs or partial replacements of components as normal maintenance. We include the estimated cost of \$9,000 for replacement of the fans.

Fire Suppression System

Line Item: 7.500

Quantity: Approximately 22,520 square feet of garage area

History: The age of the system was unavailable at the time of our inspection. The Cooperative last conducted a five-year inspection of the system in 2020 and performed \$6,500 in repairs funded through the operating budget.

Condition: Reported satisfactory



Fire suppression system piping and sprinkler head



Fire suppression system inlet piping and valves

Useful Life: Up to 60 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.

Light Fixtures

Line Item: 7.600

Quantity: 63 light fixtures

History: Replaced near 2010

Condition: Reported satisfactory



Overview of light fixture

Useful Life: Up to 30 years

Priority/Criticality: Per Board discretion

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

Traffic Coating

Line Item: 7.800

Quantity: Approximately 11,780 square feet at the ground level

History: Replaced near 2010

Condition: Good to fair overall with prior repairs evident



Traffic coating at ramp to on-grade parking

Useful Life: Every 10- to 15-years

Component Detail Notes: In our experience, active periodic maintenance and protection with a traffic coating on elevated concrete structures results in a longer useful life, safer operation and a lower overall life cycle costs. Failure to maintain a traffic coating on elevated floors will result in accelerated concrete deterioration at concrete ceilings below the elevated floors and a higher overall capital investment in the parking structure over time.

Salts and moisture-driven chemical reactions are detrimental to the integrity of an elevated structural concrete garage floor. Road salts deposited as snow melts from vehicles or chlorides and moisture contained in ambient air penetrate the concrete surface. The dissolved chlorides and moisture then migrate to the imbedded reinforcing steel through pores in the concrete or directly through cracks. Once they reach the steel, salts and moisture cause expansive corrosion, ultimately causing the concrete to expand and “pop” or spall. Left unrepaired, additional chlorides and moisture will continue to infiltrate the concrete, eventually causing structural failure. This type of deterioration is progressive and costly to repair. The utilization of a traffic coating atop the concrete minimizes the infiltration of salts and moisture into the concrete thereby minimizing future capital repairs.

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. Expenditures assume:

- Complete inspection of the garage concrete and concrete repairs as described in the previous narrative “**Concrete, Elevated Floors**”
- Preparation of the concrete surface
- Application of a urethane base coat, intermediate aggregate coating and top coat to the elevated floors
- Parking and directional line striping as needed

Unit Heaters

Line Item: 7.900

Quantity: Six gas-fired unit heaters

History: The ages of the unit heaters vary and was unavailable at the time of our inspection.

Condition: Reported satisfactory



Overview of unit heaters

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.

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.

2615 Park 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 Cooperative 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 Shareholders 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 Minneapolis, Minnesota at an annual inflation rate³. Isolated or regional markets of

¹ Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

² See Credentials for additional information on our use of published sources of cost data.

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

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

- The past and current maintenance practices of 2615 Park and their effects on remaining useful lives
- Financial information provided by the Cooperative pertaining to the cash status of the reserve fund and budgeted reserve contribution
- The anticipated effects of appreciation of the reserves over time in accord with a return or yield on investment of your cash equivalent assets. (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).
- The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions.



6. CREDENTIALS

HISTORY AND DEPTH OF SERVICE

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

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

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

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

TOTAL STAFF INVOLVEMENT

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

OUR GOAL

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

VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

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

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

OLD TO NEW

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

KEARY D. WASS, PE, RS
Responsible Advisor



CURRENT CLIENT SERVICES

Keary D. Wass, a Civil Engineer, is an Advisor for Reserve Advisors. Mr. Wass is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports for apartments, high rises, condominiums, townhomes and homeowners associations. Mr. Wass frequently serves as the Quality Assurance Review Coordinator for all types of developments.

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

Frisco Stonewater Crossing Homeowners Association is a 243 unit homeowners association located in Frisco, Texas. This development boasts an impressive in-ground pool, pool house and large playground. It also has two ponds surrounded by decorative concrete retaining walls.

1301 Canyon Condominium Association is a 31 unit mixed use midrise condominium building located in Boulder, Colorado. This building comprises of a shared underground parking structure, hydraulic elevators and building mechanical systems. The Association maintains the common area hallways and flat roof system.

311 Superior Homeowners' Association is a 33 unit mixed use midrise condominium building located in Duluth, Minnesota. Located in downtown Duluth, this building comprises of on-grade and elevated parking structures, lobbies, flat roofs, building mechanical systems, elevators and common area hallways.

Woods at Elk River Station is a townhome style development comprising of 298 units in 41 buildings located in Elk River, Minnesota. This townhome style development maintains the asphalt shingle roof systems, driveway pavement and siding. Additionally they provide amenities including playground equipment, a community gazebo and a common area pond.

Silver Lake Village Condominium Owners Association is 130 units in two condominium buildings located in Saint Anthony, Minnesota. These buildings are comprised of underground parking garages, building mechanical systems, common area hallways, party rooms and rest rooms. They also include a spacious landscaped courtyard between the two buildings.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Wass worked as a civil engineer for a construction engineering firm specializing in the repair and construction of underground structures. He was responsible for soil condition analysis, inspection of existing structures, repair and new construction design, and construction oversight of a variety of municipal and private engineering projects. Mr. Wass attended the University of Minnesota in Minneapolis, Minnesota where he attained his Bachelor of Science degree in Civil Engineering. At the University of Minnesota, Mr. Wass performed undergraduate research in the field of non-destructive testing of rigid pavements.

EDUCATION

University of Minnesota - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS

Professional Engineer (PE) - Minnesota Board of Architecture, Engineering, Land Surveying Landscape Architecture, Geoscience and Interior Design (AELSLAGID)

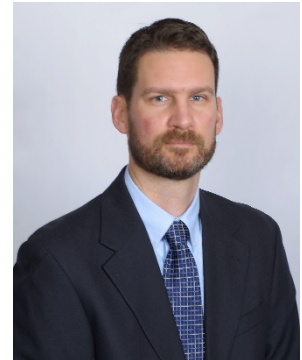
Reserve Specialist (RS) - Community Associations Institute

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 2615 Park 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) 2615 Park 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.